



Digest Book



Intermag 2023
Sendai, Japan
May 15 - 19, 2023

Online Conference starts May 29



 **IEEE**
MAGNETICS

公益社団法人
日本磁気学会
The Magnetics Society of Japan

Jointly sponsored by
IEEE Magnetic Society and
The Magnetic Society of Japan

Session TU
TUTORIAL: MAGNETIC SENSORS

Hyunsoo Yang, Chair
 National University of Singapore, Singapore

- TU-01. Magnetic nanoparticles and sensors for rapid diagnostic testing in healthcare, food safety, and environmental control.**
(Invited) M. Rivas¹ I. University of Oviedo, Oviedo, Spain
- TU-02. Magnetoresistive and anomalous Hall sensors: from static to dynamic linearization and single device vector field sensing.**
(Invited) Y. Wu¹ I. National University of Singapore, Singapore
- TU-03. Magnetic sensors for industrial and automotive applications.**
(Invited) W. Lee¹ I. Texas Instruments, Dallas, TX, United States

Session PL
IEEE AWARD CEREMONY & PLENARY SESSION

Koki Takanashi, Co-Chair
 Tohoku University, Sendai, Japan
 Bethanie Stadler, Co-Chair
 University of Minnesota, Minneapolis, MN, United States

- PL-01. NanoTerasu: Next Generation Synchrotron Light Source in Japan.** *(Invited) M. Takata¹ I. International Center for Synchrotron Radiation Innovation Smart (SRIS), Tohoku University, Sendai, Japan*

SYMPOSIA

Session SA
**AI/ML APPROACHES FOR THE DEVELOPMENT
 AND DISCOVERY OF FUTURE MAGNETIC
 MATERIALS**

Atsufumi Hirohata, Chair
 University of York, York, United Kingdom

- SA-01. Machine learning collective excitations in quantum materials.** *(Invited) M. Li¹ I. Department of Nuclear Science and Engineering, MIT, Cambridge, MA, United States*
[View Digest Text](#)

SA-02. Predicting topological properties in materials using machine learning. (Invited) N. Claussen¹, N. Andrejevic^{2,3}, J. Andrejevic^{4,5}, B. Bernevig^{6,7}, N. Regnault⁸, F. Han^{3,9}, G. Fabbris¹⁰, T. Nguyen^{3,9}, N.C. Drucker^{3,5}, C.H. Rycroft^{11,6} and M. Li^{3,9} 1. Department of Physics, University of California at Santa Barbara, Santa Barbara, CA, United States; 2. Center for Nanoscale Materials, Argonne National Laboratory, Lemont, IL, United States; 3. Quantum Measurement Group, Massachusetts Institute of Technology, Cambridge, MA, United States; 4. Department of Physics, University of Pennsylvania, Philadelphia, PA, United States; 5. John A. Paulson School of Engineering and Applied Sciences, Harvard University, Cambridge, MA, United States; 6. Department of Physics, Princeton University, Princeton, NJ, United States; 7. Donostia International Physics Center, Donostia-San Sebastian, Spain; 8. Laboratoire de Physique de l'Ecole Normale Supérieure, ENS, Université PSL, CNRS, Sorbonne Université, Université Paris-Diderot, Paris, France; 9. Department of Nuclear Science and Engineering, Massachusetts Institute of Technology, Cambridge, MA, United States; 10. Advanced Photon Source, Argonne National Laboratory, Lemont, IL, United States; 11. Department of Mathematics, University of Wisconsin-Madison, Madison, WI, United States

[View Digest Text](#)

SA-03. Magnetic materials prediction, high through put, artificial intelligence versus materials intuition. (Invited) C. Felser¹, M. Vergniory^{1,2}, Y. Zhang^{1,3}, Y. Sun^{1,4} and J. Noky¹ 1. Max Planck Institute for Chemical Physics of Solids, Dresden, Germany; 2. Donostia International Physics Center, Donostia-San Sebastián, Spain; 3. Physics, Massachusetts Institute of Technology, Boston, MA, United States; 4. Shenyang National Laboratory for Materials Science, Shenyang, China

[View Digest Text](#)

SA-04. Autonomous materials search for high-magnetization alloy. (Invited) Y. Iwasaki¹ 1. National Institute for Materials Science (NIMS), Tsukuba, Japan

[View Digest Text](#)

SA-05. Robust Exchange Stiffness at Interface of Magnetic Tunnel Junctions. (Invited) M. Shirai^{1,2}, T. Roy² and M. Tsujikawa¹ 1. Research Institute of Electrical Communication, Tohoku University, Sendai, Japan; 2. Center for Science and Innovation in Spintronics, Tohoku University, Sendai, Japan

[View Digest Text](#)

SA-06. Physics Informed Machine Learning for Permanent Magnet Design. (Invited) A. Kovacs^{1,2}, J. Fischbacher^{1,2}, H. Oezelt^{1,2}, A. Kornell^{1,2}, Q. Ali^{1,2}, M. Gusenbauer^{1,2}, M. Yano³, N. Sakuma³, A. Kinoshita³, T. Shoji³, A. Kato³, T. Fukushima⁴, H. Akai⁴, N. Kawashima⁴, T. Miyake⁵ and T. Schrefl^{1,2} 1. Christian Doppler Laboratory for Magnet Design through Physics Informed Machine Learning, University for Continuing Education Krems, Krems, Austria; 2. Department for Integrated Sensor Systems, University for Continuing Education Krems, Krems, Austria; 3. Advanced Materials Engineering Div., Toyota Motor Corporation, Mishuku Susono, Japan; 4. The Institute for Solid State Physics, The University of Tokyo, Kashiwa, Japan; 5. National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan

[View Digest Text](#)

Session SB

COHERENT MAGNON INTERACTIONS

Axel Hoffman, Chair

University of Illinois at Urbana-Champaign, Urbana, IL, United States

SB-01. Many-body magnonic open quantum systems. (Invited)

*M. Elyasi*¹, *T. Hioki*^{1,2}, *T. Makiuchi*², *S. Kanai*^{3,1}, *L. Sheng*⁴,
*K. Yamamoto*⁵, *H. Kurebayashi*⁶, *T. van der Sar*⁷, *H. Yu*⁴,
*Y. Blanter*⁷, *S. Fukami*^{3,1}, *E. Saitoh*^{2,1} and *G. Bauer*^{1,8}

1. Advanced Institute for Materials Research, Tohoku University, Sendai, Japan; 2. Department of Applied Physics, The University of Tokyo, Tokyo, Japan; 3. Research Institute of Electrical Communication, Tohoku University, Sendai, Japan; 4. School of Integrated Circuit Science and Engineering, Beihang University, Beijing, China; 5. Japan Atomic Energy Agency, Tokai, Japan; 6. London Centre for Nanotechnology, University College London, London, United Kingdom; 7. Kavli Institute of Nanoscience, Delft University of Technology, Delft, Netherlands; 8. Kavli Institute for Theoretical Sciences, University of Chinese Academy of Sciences, Beijing, China

[View Digest Text](#)

SB-02. Withdrawn**SB-03. Coherent Coupling of Two Remote Magnonic Resonators Mediated by Superconducting Circuits. (Invited)**

*Y. Li*¹, *V.G. Yefremenko*², *M. Lisovenko*², *C. Trevillian*⁴,
*T. Polakovic*³, *T.W. Cecil*², *P.S. Barry*², *J.E. Pearson*¹,
*R. Divan*⁵, *V. Tyberkevych*⁴, *C.L. Chang*², *U. Welp*¹, *W. Kwok*¹
and *V. Novosad*¹ *1. Materials Science Division, Argonne National Laboratory, Lemont, IL, United States; 2. High Energy Physics Division, Argonne National Laboratory, Lemont, IL, United States; 3. Physics Division, Argonne National Laboratory, Lemont, IL, United States; 4. Department of Physics, Oakland University, Rochester, MI, United States; 5. Center for Nanoscale Materials, Argonne National Laboratory, Lemont, IL, United States*

[View Digest Text](#)

SB-04. Magnon-phonon coupling in a layered antiferromagnet. (Invited)

*J. Puebla*¹, *T. Lyons*¹, *K. Yamamoto*², *R. Deacon*¹,
*Y. Hwang*¹, *S. Maekawa*¹ and *Y. Otani*¹ *1. Center for Emergent Matter Science, RIKEN, Wako, Japan; 2. Japan Atomic Energy Agency, Tokai, Japan*

[View Digest Text](#)

SB-05. Design of k-space Magnon Dynamics by Machine Learning. (Invited)

*G. Csaba*¹, *A. Papp*¹, *A. Horvath*¹, *J. Kim*³,
*M. Massouras*³, *A. Anane*², *C. Serpico*⁴, *S. Perna*⁴ and
*M. d'Aquino*⁴ *1. Pazmany University Budapest, Budapest, Hungary; 2. Unite Mixte de Physique, CNRS, Thales, Universite Paris-Saclay, Paris, France; 3. Centre for Nanoscience and Nanotechnology, CNRS, Universite Paris-Saclay, France, Paris, France; 4. University of Naples, Naples, Italy*

[View Digest Text](#)

SB-06. Pattern Recognition with Magnons. (Invited)

*K. Schultheiss*¹ *1. Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany*

[View Digest Text](#)

Session SC

FUNDAMENTALS OF MAGNETIC NANOPARTICLES: RECENT INSIGHTS IN STRUCTURE-PROPERTY RELATIONS

Jonathan Leliaert, Chair
Ghent University, Ghent, Belgium

SC-01. Magnetic Nanoparticles: From the Nanostructure to the Physical Properties. (Invited) X. Batlle^{1,2}, C. Moya^{1,2}, M. Escoda-Torroella^{1,2}, O. Iglesias^{1,2}, A. Fraile Rodríguez^{1,2} and A. Labarta^{1,2} *1. Física de la Matèria Condensada, Universitat de Barcelona, Barcelona, Spain; 2. Institut de Nanociència i Nanotecnologia de la UB (IN2UB), Barcelona, Spain*
[View Digest Text](#)

SC-02. Tuning the Intrinsic Features of Magnetic Nanoparticles and Exploiting their Assembly to Optimize the Response to External AC Fields for Magnetic Fluid Hyperthermia. (Invited) H. Gavilán¹, K. Simeonidis³, E. Myrovali³, E. Mazarío⁴, O. Chubykalo-Fesenko⁵, R.W. Chantrell⁶, L. Balcells⁷, M. Angelakeris³, M.d. Morales⁵ and D. Serantes² *1. Universidad Complutense de Madrid, Madrid, Spain; 2. Universidade de Santiago de Compostela, Santiago de Compostela, Spain; 3. Aristotle University of Thessaloniki, Thessaloniki, Greece; 4. Universidad Autónoma de Madrid, Madrid, Spain; 5. Instituto de Ciencia de Materiales de Madrid, Madrid, Spain; 6. University of York, Heslington, United Kingdom; 7. Institute of Materials Science of Barcelona, Barcelona, Spain*
[View Digest Text](#)

SC-03. Spin Disorder and Magnetic Morphologies in Magnetic Nanoparticles. (Invited) S. Disch¹ *1. University of Duisburg-Essen, Essen, Germany*
[View Digest Text](#)

SC-04. Functional magnetic nanoparticles: from synthesis design to in-depth characterization and nano-labelling for ultrasensitive magnetic biosensing. (Invited) R. Sack¹, M. Zgheib¹, M. Chowdhury¹, Y. Wang¹, F. Ludwig¹, M. Schilling¹, T. Viereck¹ and A. Lak¹ *1. Institute for Electrical Measurement Science and Fundamental Electrical Engineering, Technical University of Braunschweig, Braunschweig, Germany*
[View Digest Text](#)

SC-05. High-throughput determination of structure-property relationships of magnetic nanoparticles using a multi-detector chromatographic approach. (Invited) N. Löwa¹, A. Remmo¹ and F. Wiekhorst¹ *1. Physikalisch-Technische Bundesanstalt, Berlin, Germany*
[View Digest Text](#)

- SC-06. Quantifying the magnetic anisotropy of individual nanomagnets embedded in biological entities. (Invited)**
*L. Marcano*¹, *I. Orue*², *D. Gandia*³, *A. García-Prieto*⁴,
*M. Fernandez Gubieda*³ and *S. Valencia*⁵ *1. Physics, University of Oviedo, Gijón, Spain; 2. SGIker, Universidad del País Vasco – UPV/EHU, Leioa, Spain; 3. Dpto. Electricidad y Electrónica, Universidad del País Vasco – UPV/EHU, Leioa, Spain; 4. Dpto. Física Aplicada, Universidad del País Vasco – UPV/EHU, Bilbao, Spain; 5. Helmholtz-Zentrum Berlin für Materialien und Energie, Berlin, Germany*
[View Digest Text](#)

SYMPOSIA

Session SD
LATEST ADVANCES IN MAGNETIC NANOTECHNOLOGY

Montserrat Rivas, Chair
Universidad de Oviedo, Gijón, Spain

- SD-01. Challenges in magnetic characterization at the nanoscale. (Invited)** *E. Berganza*², *M. Jaafar*¹, *C. Bran*², *R. Perez Del Real*², *O. Chubykalo-Fesenko*², *M. Vázquez*² and *A. Asenjo*²
1. Universidad Autónoma de Madrid, Madrid, Spain; 2. Institute of Materials Science of Madrid (ICMM-CSIC), Madrid, Spain
[View Digest Text](#)
- SD-02. Noncollinear Magnetism and Spintronics in van der Waals Magnets. (Invited)** *P. Upadhyaya*¹, *M. Rahman*¹, *G. Cheng*², *A. Rustagi*¹ and *Y. Chen*¹ *1. Purdue University, West Lafayette, IN, United States; 2. University of Science and Technology of China, Hefei, China*
[View Digest Text](#)
- SD-03. Superconducting Resonators for Hybrid Magnonics. (Invited)** *V. Novosad*¹ *1. Materials Science Division, Argonne National Laboratory, Lemont, IL, United States*
[View Digest Text](#)
- SD-04. Machine Learning Quantum Systems with Magnetic p-Bits. (Invited)** *S. Chowdhury*¹ and *K. Camsari*¹ *1. Electrical and Computer Engineering, University of California, Santa Barbara, Santa Barbara, CA, United States*
[View Digest Text](#)
- SD-05. Nanoclustered Magnetic Josephson Junctions as Artificial Synapses. (Invited)** *E. Jué*^{1,2} *1. National Institute of Standards and Technology, Boulder, CO, United States; 2. Physics, University of Colorado Boulder, Boulder, CO, United States*
[View Digest Text](#)
- SD-06. Skyrmion Dynamics and the Skyrmion-Excited Spin Wave Fractal Network. (Invited)** *D. Gilbert*¹ *1. University of Tennessee, Knoxville, TN, United States*
[View Digest Text](#)

Session SE
MODELING, DESIGN, CONSTRUCTION AND
ANALYSIS OF ELECTRICAL MACHINES FOR
SUSTAINABLE APPLICATIONS

Yacine Amara, Chair
Université Le Havre Normandie, Le Havre, France

- SE-01. Improving Repeatability of Tests for Iron Loss Prediction and Electrical Machines Model Calibration. (Invited)** J. Soulard¹, E. Griffin¹, X. Ma¹ and B. Silvester¹ *I. WMG, University of Warwick, Coventry, United Kingdom*
[View Digest Text](#)
- SE-02. Robust Design of Permanent Magnet Motors for Electric Traction Applications. (Invited)** G.K. Sakkas¹ and A.G. Kladas¹ *I. Electrical and Computer Engineering, National Technical University of Athens, Athens, Greece*
[View Digest Text](#)
- SE-03. Fast and Accurate Modelling of Laminated Cores in Electrical Machines using Homogenization and Neural Networks. (Invited)** F. Purnode¹, F. Henrotte¹, G. Louppe¹ and C. Geuzaine¹ *I. Department of Electrical Engineering and Computer Science, Université de Liège, Liège, Belgium*
[View Digest Text](#)
- SE-04. 3D printing of multipolar bonded SmCo permanent magnets. (Invited)** A. Vucemilovic¹, M. Savary¹ and C. Espanet¹ *I. Moving Magnet Technologies, BESANCON, France*
[View Digest Text](#)
- SE-05. Analytical design and optimization of HTS electrical machines. (Invited)** S. Mezani¹ *I. Laboratoire GREEN, Université de Lorraine, Nancy, France*
[View Digest Text](#)
- SE-06. Permanent Magnet Linear Machines with Asymmetrical Tooth Tip. (Invited)** Q. Lu¹, M. Zheng¹ and Y. Li¹ *I. College of Electrical Engineering, Zhejiang University, Hangzhou, China*
[View Digest Text](#)

Session SF

NEW DESIGNS AND DEVELOPMENTS IN SOFT MAGNETIC MATERIALS AND MAGNETIC CORES FOR POWER ELECTRONICS TECHNOLOGY NEEDED FOR CARBON NEUTRAL SOCIETY

Masahiro Yamaguchi, Chair
Tohoku University, Sendai, Japan

- SF-01. Passive Components for Advancement of Power Electronics. (Invited) T. Shimizu¹** *1. Electrical Engineering, Tokyo Metropolitan University, Hachioji, Japan*
[View Digest Text](#)
- SF-02. Skin effect in iron-silicon steel sheets: from low inductions to saturation. (Invited) O. de la Barrière¹, E. Ferrara², A. Magni², A. Sola², C. Ragusa³, C. Appino² and F. Fiorillo²** *1. SATIE, CNRS, University of Paris-Sud, Gif-sur-Yvette, France; 2. INRIM, Torino, Italy; 3. Energy, Politecnico di Torino, Torino, Italy*
[View Digest Text](#)
- SF-03. Energy loss and constitutive equation of soft magnetic materials for broadband applications in power electronics. (Invited) C. Ragusa¹, L. Solimene¹, S. Musumeci¹, O. de la Barrière², C. Beatrice³, E. Ferrara³ and F. Fiorillo³** *1. Department of Energy, Politecnico di Torino, Torino, Italy; 2. Laboratoire SATIE, CNRS-ENS, Saclay, France; 3. Advanced Materials Metrology and Life Sciences, INRIM, Torino, Italy*
[View Digest Text](#)
- SF-04. Challenges to high magnetic flux density and low loss magnetic materials and devices for next-generation power electronics. (Invited) S. Okamoto¹, N. Ono¹, T. Onuma^{1,2}, Z. Li¹, Y. Uehara², A. Bolyachkin³, H. Sepehri-Amin³ and T. Ohkubo³** *1. Tohoku University, Sendai, Japan; 2. Magnetic Device Laboratory Ltd., Kawasaki, Japan; 3. National Institute for Materials Science, Tsukuba, Japan*
[View Digest Text](#)
- SF-05. Development of anisotropic nanocrystalline ribbon core and powdered core for high frequency transformers and inductors. (Invited) T. Sato¹, T. Tada¹, T. Kanaya¹, M. Sonehara¹ and T. Mizuno¹** *1. Electrical and Computer Engineering, Shinshu University, Nagano, Japan*
[View Digest Text](#)
- SF-06. Amorphous Metal Ribbon (AMR) & Metal Amorphous Nanocomposite (MANC) Materials Enabled High Power Density Vehicle Motor Applications. (Invited) M. McHenry¹, K. Schneider², S. Simizu¹, J. Egbu¹, M.P. DeBoer² and E. Thiesen³** *1. Materials Science and Engineering, Carnegie Mellon University, Pittsburgh, PA, United States; 2. Mechanical Engineering, Carnegie Mellon University, Pittsburgh, PA, United States; 3. Metglas, Conway, SC, United States*
[View Digest Text](#)

Session SG

**WHAT IS THE PLACE OF MAGNETIC MATERIALS
IN TOMORROW'S CHIPS?**

Paolo Bortolotti, Chair

Unité Mixte de Physique, CNRS, Thales, Université Paris-Saclay,
Palaiseau, France

- SG-01. Spin-Transfer Torque MRAM – Status and Outlook.** *(Invited)* G. Hu¹ 1. IBM T.J. Watson Research Center, Yorktown Heights, NY, United States., Yorktown Heights, NY, United States
[View Digest Text](#)
- SG-02. Multi-Functionality in Magnetic Tunnel Junctions.** *(Invited)* A. Jenkins¹, L. Martins¹, L. Benetti¹, A. Schulman¹, P. Anacleto¹, M. Claro¹, T. Boehnert¹, E. Paz¹ and R. Ferreira¹
1. International Iberian Nanotechnology Laboratory, Braga, Portugal
[View Digest Text](#)
- SG-03. Radio-Frequency Spintronic Neural Networks.** *(Invited)* A. Ross¹, N. Leroux¹, A. de Riz¹, D. Markovic¹, D. Sanz Hernandez¹, J. Trastoy¹, P. Bortolotti¹, D. Querlioz², L. Martins³, L. Benetti³, M. Claro³, P. Anacleto³, A. Schulman³, T. Taris⁴, J. Begueret⁴, S. Saïghi⁴, A. Jenkins³, R. Ferreira³, A. Vincent⁴, A. Mizrahi¹ and J. Grollier¹ 1. CNRS Thales, Palaiseau, France; 2. Université Paris Saclay, Palaiseau, France; 3. International Iberian Nanotechnology Laboratory, Braga, Portugal; 4. University of Bordeaux, Bordeaux, France
[View Digest Text](#)
- SG-04. Spintronic logic: from transducers to logic gates and circuits.** *(Invited)* C. Adelman¹, F. Ciubotaru¹, F. Meng^{1,2}, S. Cotofana³ and S. Couet¹ 1. Imec, Leuven, Belgium; 2. ESAT, KU Leuven, Leuven, Belgium; 3. QCE, TU Delft, Delft, Netherlands
[View Digest Text](#)
- SG-05. Magnetism meet microelectromechanical systems.** *(Invited)* F. Maspero¹, S. Cuccurullo², G. Pavese², M. Cocconcelli², A. Del Giacco², A.E. Plaza², O. Koplak² and R. Bertacco^{2,3}
1. Department of Environmental and Civil Engineering, Politecnico di Milano, Milano, Italy; 2. Department of Physics, Politecnico di Milano, Milano, Italy; 3. Institute for Photonics and Nanotechnologies, CNR-IFN, Milano, Italy
[View Digest Text](#)
- SG-06. A Collaboration from High Frequency Soft Magnetic Materials to Integrated Circuit Design for beyond 10MHz Switching Power Supply.** *(Invited)* K. Miyaji¹, M. Sonehara¹ and T. Sato¹ 1. Shinshu University, Nagano, Japan
[View Digest Text](#)

Session AOA

MAGNETORESISTANCE IN HETEROSTRUCTURES I

Jun'ichi Ieda, Chair

Japan Atomic Energy Agency, Tokai, Japan

- AOA-01. Magnetoresistance and Anomalous Hall Effect in Helical Eu Metallic Films.** N. Shrestha¹ and J. Tang¹ *1. Physics & Astronomy, University of Wyoming, Laramie, WY, United States*
[View Digest Text](#)
- AOA-02. Autonomous material search for highly spin-polarized disordered material: Enhanced spin-polarization of CoFe upon Ag substitution.** V.K. Kushwaha¹, Y. Iwasaki¹, T. Nakatani¹, T. Sasaki¹, S. Kasai¹, K. Uchida¹ and Y. Sakuraba¹ *1. National Institute for Materials Science, Sengen, Japan*
[View Digest Text](#)
- AOA-03. Room-temperature intrinsic ferromagnetism and magnetic manipulation of epitaxial CrTe₂ ultrathin films.** X. Zhang¹, W. Liu², L. He³, R. Zhang³, G. Bian⁴, P. Li⁵ and Y. Xu³ *1. Shenzhen Institute for Quantum Science and Engr., Shenzhen, China; 2. Royal Holloway University of London, Surrey, United Kingdom; 3. Nanjing University, Nanjing, China; 4. University of Missouri, Columbia, MO, United States; 5. University of Science and Technology of China, Hefei, China*
[View Digest Text](#)
- AOA-04. Negative spin polarization of Mn₂VGa Heusler alloy thin film studied in current-perpendicular-to-plane giant magnetoresistance devices.** H. Suto¹, V. Barwal¹, Z. Li¹, K. Masuda¹, T. Sasaki¹ and Y. Sakuraba¹ *1. Reserch Center for Magnetic and Spintronic Materials, National Institute for Materials Science (NIMS), Tsukuba, Japan*
[View Digest Text](#)
- AOA-05. Large spin-dependent scattering at half-metallic Co₂FeGa_{0.5}Ge_{0.5} Heusler alloy and CoFe polycrystalline interface.** D. Taparia¹, T. Sasaki¹, T. Nakatani¹, H. Suto¹, Y. Miura¹, Z. Li¹, V.K. Kushwaha¹, I. Kazuumi², I. Shinto², N. Katsuyuki², S. Tomoyuki², S. Mitani¹ and Y. Sakuraba¹ *1. Research Center for Magnetic and Spintronic Materials, National Institute for Materials Science (NIMS), Tsukuba, Japan; 2. Advanced Products Development Center, Technology & Intellectual Property HQ, TDK Corporation, Chiba, Japan*
[View Digest Text](#)
- AOA-06. Over 100% magnetoresistance in perpendicularly magnetized magnetic tunnel junctions with a Co₃Mn/Mo/CoFeB multilayer.** T. Yamamoto¹, T. Ichinose¹, J. Uzuhashi², T. Nozaki¹, T. Ohkubo², K. Yakushiji¹, S. Tamaru¹ and S. Yuasa¹ *1. National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan; 2. National Institute for Materials Science (NIMS), Tsukuba, Japan*
[View Digest Text](#)

- AOA-07. Mo-Based Perpendicularly Magnetized Thin Films with Low Damping for Fast and Low-Power Consumption Magnetic Memory.** *H. Cheng¹, Z. Boyu¹, Y. Xu¹, S. Eimer¹ and W. Zhao¹* 1. *School of Integrated Circuit Science and Engineering, Beihang University, Beijing, China*
[View Digest Text](#)
- AOA-08. CoCrMnZ (Z=Al, Ga, Si, Ge) Heusler Alloys: Potential Electrode Materials for MgO-based Magnetic Tunnel Junctions.** *T. Roy¹, M. Tsujikawa² and M. Shirai^{1,2}* 1. *Center for Science and Innovation in Spintronics, Tohoku University, Sendai, Japan;* 2. *Research Institute of Electrical Communication, Tohoku University, Sendai, Japan*
[View Digest Text](#)
- AOA-09. Co₉₀Fe₁₀/Mg-Al-O/Co₉₀Fe₁₀ magnetic tunnel junctions with a fully epitaxial fcc (111) structure.** *J. Song^{1,2}, T. Scheike¹, C. He¹, Z. Wen¹, H. Sukegawa¹, T. Ohkubo¹, K. Hono¹ and S. Mitani^{1,2}* 1. *National Institute for Materials Science (NIMS), Tsukuba, Japan;* 2. *Graduate School of Science and Technology, University of Tsukuba, Tsukuba, Japan*
[View Digest Text](#)
- AOA-10. Nanosecond Superparamagnetic Tunnel Junctions Controlled by Spin-Transfer-Torque and Joule Heating.** *L. Schnitzspan^{1,2}, M. Kläui^{1,2} and G. Jakob^{1,2}* 1. *Physics, Johannes Gutenberg University, Mainz, Germany;* 2. *Max Planck Graduate Center Mainz, Mainz, Germany*
[View Digest Text](#)
- AOA-11. CoFeB/MgO/CoFeB-based magnetic tunnel junction using soft magnetic composite free layer with TaFeB spacer.** *T. Nakano¹, K. Fujiwara², S. Kumagai², Y. Ando^{1,3} and M. Oogane¹* 1. *Department of Applied Physics, Tohoku University, Sendai, Japan;* 2. *Spin Sensing Factory Corporation, Sendai, Japan;* 3. *Department of Advanced Spintronics Medical Engineering, Tohoku University, Sendai, Japan*
[View Digest Text](#)
- AOA-12. Theory for Temperature Dependence of Tunnel Magnetoresistance: Crucial Role of Interfacial *s-d* Exchange Interaction.** *K. Masuda¹, T. Tadano¹ and Y. Miura¹* 1. *National Institute for Materials Science (NIMS), Tsukuba, Japan*
[View Digest Text](#)

Session AOB
SPIN ORBITRONICS I

Hai Pham, Chair

Tokyo Institute of Technology, Tokyo, Japan

- AOB-01. Current-induced magnetization switching in magnetic multilayers with interlayer exchange coupling by dual spin-orbit torque.** *H. Masuda^{1,2}, Y. Yamane^{3,4}, T. Seki^{1,5}, K. Raab⁶, T. Dohi^{6,4}, R. Modak⁵, K. Uchida^{5,1}, J. Ieda⁷, M. Kläui⁶ and K. Takanashi^{1,7}* *1. Institute for Materials Research, Tohoku University, Sendai, Japan; 2. Department of Materials Science, Graduate School of Engineering, Tohoku University, Sendai, Japan; 3. Frontier Research Institute for Interdisciplinary Sciences, Tohoku University, Sendai, Japan; 4. Research Institute of Electrical Communication, Tohoku University, Sendai, Japan; 5. Research Center for Magnetic and Spintronic Materials, National Institute for Materials Science (NIMS), Tsukuba, Japan; 6. Institute for Physics, Johannes Gutenberg University Mainz, Mainz, Germany; 7. Advanced Science Research Center, Japan Atomic Energy Agency, Tokai, Japan*
[View Digest Text](#)
- AOB-02. Spin Hall Switching Enabled by Uniaxial In-Plane Magnetocrystalline Anisotropy.** *S. Nallan¹ and J. Zhu¹* *1. Electrical and Computer Engineering, Carnegie Mellon University, Pittsburgh, PA, United States*
[View Digest Text](#)
- AOB-03. Intrinsic Orbital and Spin Hall Effect in Bismuth Semimetal.** *G. Qu¹ and G. Tataru¹* *1. RIKEN, Wako-shi, Japan*
[View Digest Text](#)
- AOB-04. Withdrawn**
- AOB-05. Time-Resolved Transitions Between Auto-Oscillation Modes in Nanoconstriction-based Spin Hall Nano-oscillators.** *A.A. Awad¹, K. Wagner², A. Chaurasiya¹, V. Gonzalez¹, M. Rajabali¹, R. Khymyn¹, H. Schultheiss² and J. Åkerman¹* *1. Department of Physics, University of Gothenburg, Gothenburg, Sweden; 2. Institute of Ion Beam Physics and Materials Research, Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany*
[View Digest Text](#)
- AOB-06. Emulation of Neuron and Synaptic Functions in Spin-Orbit Torque Domain Wall Devices.** *D. Kumar¹, M. Ramu¹, H. Rahaman¹, H. Chung², T. Jin¹, S. Lim², R. Sbiaa³ and S. Piramanayagam¹* *1. School of Physical and Mathematical Sciences, Nanyang Technological University, Singapore, Singapore; 2. Institute of Materials Research and Engineering, Singapore, Singapore; 3. Department of Physics, Sultan Qaboos University, Muscat, Oman*
[View Digest Text](#)

- AOB-07. The influence of superconductivity with spin-orbit coupling and magnetic interaction in ferromagnet/superconductor heterostructures.** D. Zhao^{1,2}, Z. Zhao^{1,2}, Y. Xu^{1,2} and D. Wei^{1,2} *1. Institute of Semiconductors, Chinese Academy of Sciences, Beijing, China; 2. Center of Materials Science and Optoelectronics Engineering, University of Chinese Academy of Sciences, Beijing, China*
[View Digest Text](#)
- AOB-08. Fabrication and evaluation of fully sputtered topological insulator/perpendicularly magnetized CoFeB/MgO multilayers for SOT-MRAM application.** R. Zhang¹, T. Shirokura¹, F. Tuo¹ and H.N. Pham¹ *1. Electric and Electronic Engineering, Tokyo Institute of Technology, Oota, Japan*
[View Digest Text](#)
- AOB-09. Large interfacial Rashba interaction and resultant dominating field-like torque in atomically thin metallic heterostructures.** S. Krishnia¹, N. Sebe¹, Y. Sassi¹, F. Ajejas¹, N. Reyren¹, S. Collin¹, T. Denneulin², A. Kovács², R.E. Dunin-Borkowski², A. Fert¹, J. George¹, H. Jaffrès¹ and V. Cros¹ *1. Unité Mixte de Physique, CNRS, Thales, Université Paris-Saclay, 91767, Palaiseau, France; 2. Ernst Ruska-Centre for Microscopy and Spectroscopy with Electrons (ER-C 1) and Peter Grünberg Institut (PGI-5), Forschungszentrum Jülich GmbH, 52425, Jülich, Germany*
[View Digest Text](#)
- AOB-10. Evidence of orbital-torque in two-dimensional GeSe-based heterostructure.** R. Mudgal³, S. Dewan², s. Das¹ and P.K. Muduli³ *1. Centre for Applied Research in Electronics, Indian Institute of Technology Delhi, New Delhi, New Delhi, India; 2. Indian Institute of Technology Delhi, New Delhi, India; 3. Department of Physics, Indian Institute of Technology Delhi, New Delhi, India*
[View Digest Text](#)
- AOB-11. Efficient generation of spin currents by the orbital Hall effect in Cu and Al.** A. Rothschild¹, N. Am-Shalom¹, N. Bernstein¹, B.J. Assouline¹, J. Xiao², B. Yan² and A. Capua¹ *1. Applied Physics, The Hebrew University of Jerusalem, Jerusalem, Israel; 2. Weizmann Institute of Science, Rehovot, Israel*
[View Digest Text](#)
- AOB-12. Field-free spin-orbit torque switching in perpendicularly magnetized synthetic antiferromagnets.** J. Wei¹, C. Wan¹, X. Han¹ and G. Yu¹ *1. Beijing National Laboratory for Condensed Matter Physics, Institute of Physics, Chinese Academy of Sciences, Beijing 100190, China, Beijing, China*
[View Digest Text](#)

Session AOC
SPIN ORBITRONICS II

Emilie Jué, Chair

National Institute of Standards and Technology, Boulder,
CO, United States

- AOC-01. Growth, optimization, and electrical manipulation of rare-earth iron garnets for spintronic applications.** *(Invited)* C.O. Avci¹ 1. Institute of Materials Science of Barcelona (ICMAB-CSIC), Barcelona, Spain
[View Digest Text](#)
- AOC-02. Generalized angle resolved second harmonic method for precise evaluation of spin orbit torque in strong perpendicular magnetic anisotropy system.** T. Shirokura¹ and H.N. Pham¹ 1. Tokyo Institute of Technology, Meguro, Japan
[View Digest Text](#)
- AOC-03. Field-free switching enabled by interplay of spin-orbit torque and interlayer Dzyaloshinskii–Moriya interaction.** W. He^{1,2}, C. Wan¹ and X. Han¹ 1. Beijing National Laboratory for Condensed Matter Physics, Institute of Physics, Beijing, China; 2. Center of Materials Science and Optoelectronics Engineering, University of Chinese Academy of Sciences, Beijing, China
[View Digest Text](#)
- AOC-04. Enhancement of Damping-Like Spin-Orbit-Torque Efficiency in Synthetic Antiferromagnetic System Using Pt-Cu Alloy.** Y. Saito¹, S. Ikeda^{1,2}, H. Inoue¹ and T. Endoh^{1,3} 1. Center for Innovative Integrated Electronic Systems, Tohoku University, Sendai, Japan; 2. Center for Science and Innovation in Spintronics, Tohoku University, Sendai, Japan; 3. Department of Electrical Engineering, Graduate School of Engineering, Tohoku University, Sendai, Japan
[View Digest Text](#)
- AOC-05. Withdrawn**
- AOC-06. Emergence of considerable thermoelectric effect due to the addition of an underlayer in Pt/Co/Pt stack and its application in detecting field free magnetization switching.** R. Posti¹ 1. Physics, Indian Institute of Technology, Rupnagar, India
[View Digest Text](#)
- AOC-07. Emergent inductance in ferromagnetic nanostructures.** J. Ieda¹ 1. Advanced Science Research Center, Japan Atomic Energy Agency, Tokai, Japan
[View Digest Text](#)
- AOC-08. Withdrawn**

AOC-09. Engineering of Pt/Co/Pt Interfacial Dzyaloshinskii-Moriya Interaction by Gd Dusting. *F. Dörr*¹, *C. Deger*², *M. Erkovan*^{3,4}, *S. Cardoso*^{3,4}, *P. Fumagalli*¹ and *Y. Shokr*^{1,5}
1. Institut für Experimentalphysik, Freie Universität Berlin, Berlin, Germany; 2. Department of Physics, Marmara University, Istanbul, Turkey; 3. Instituto de Engenharia de Sistemas E Computadores - Microsystemas e Nanotecnologias, Lisbon, Portugal; 4. Instituto Superior Tecnico, Lisbon, Portugal; 5. Department of Physics, Helwan University, Cairo, Egypt
[View Digest Text](#)

AOC-10. Spin-Charge Interconversion at an Oxidized Cu/W Interface. *I. Groen*^{1,2}, *V. Pham*³, *S. Ilic*⁴, *W. Choi*¹, *A. Chuvilin*^{1,5}, *E. Sagasta*¹, *D. Vaz*¹, *I. Arango*¹, *N. Ontoso*¹, *F. Bergeret*^{4,6}, *L. Hueso*^{1,5}, *I. Tokatly*^{6,5} and *F. Casanova*^{1,5}
1. CIC nanoGUNE BRTA, San Sebastian, Spain; 2. Department of Electronic Science and Engineering, Kyoto University, Kyoto, Japan; 3. CNRS, Institut Neel, Université Grenoble Alpes, Grenoble, France; 4. Centro Mixto CSIC-UPV/EHU, Centro de Fisica de Materiales (CFM-MPC), San Sebastian, Spain; 5. Ikerbasque, Basque Foundation for Science, San Sebastian, Spain; 6. Donostia International Physics Center (DIPC), San Sebastian, Spain
[View Digest Text](#)

AOC-11. Field-free spin orbit torque switching of synthetic antiferromagnet through interlayer Dzyaloshinskii-Moriya interaction. *Z. Wang*^{1,2}, *X. Zhang*^{1,3}, *F. García Sánchez*⁴, *A. Fert*⁵, *B. Koopmans*² and *W. Zhao*¹
1. Beihang University, Beijing, China; 2. Eindhoven University of Technology, Eindhoven, Netherlands; 3. Truth Instrument Cooperation, Qingdao, China; 4. Universidad de Salamanca, Salamanca, Spain; 5. University of Paris-Saclay, Palaiseau, France
[View Digest Text](#)

POSTER SESSION

Session APA

MAGNETORESISTANCE IN HETEROSTRUCTURES II (Poster Session)

Subhankar Bedanta, Chair
NISER, Bhubaneswar, Jatani, India

APA-01. Observation of Magnetoresistance Caused by Orbital Angular Momentum Accumulation. *Z. Zhu*¹, *X. Xu*¹, *C. Li*¹, *C. Dou*¹, *M. Li*¹, *K. Meng*¹, *Y. Wu*¹, *J. Chen*¹ and *Y. Jiang*²
1. School of Materials Science and Engineering, University of Science and Technology Beijing, Beijing, China; 2. Institute of Quantum Materials and Devices, School of Electronic and Information Engineering; State Key Laboratory of Separation Membrane and Membrane Processes, Tiangong University, Tianjin, China
[View Digest Text](#)

- APA-02. Minority-Spin Dominated Band Structure of Fe₄N Thin Films Unveiled by Spin- and Angle- Resolved Photoelectron Spectroscopy.** *K. Nakanishi¹, K. Ohwada¹, K. Kuroda¹, K. Sumida³, K. Miyamoto¹, T. Okuda¹, H. Sato¹, S. Isogami², K. Masuda², Y. Sakuraba² and A. Kimura¹*
1. Hiroshima University, Higashi-Hiroshima, Japan; 2. National Institute for Materials Science (NIMS), Ibaraki, Japan; 3. Japan Atomic Energy Agency, Hyogo, Japan
[View Digest Text](#)
- APA-03. Crystal Direction Dependences of Anisotropic Magnetoresistance Effects in Co₂MnGa and Co₂MnAl Heusler Alloy Epitaxial Thin Films.** *T. Sato¹, S. Kokado², M. Tsujikawa³, H. Shinya^{3,4}, T. Ogawa³, S. Kosaka¹, A. Miura¹, M. Shirai³ and M. Tsunoda³*
1. Toyota Central R&D Labs., Inc., Nagakute, Japan; 2. Shizuoka University, Hamamatsu, Japan; 3. Tohoku University, Sendai, Japan; 4. Osaka University, Toyonaka, Japan
[View Digest Text](#)
- APA-04. Large Tunnel Magnetocapacitance Effect in FeCo/MgAlO/FeCo(001) Magnetic Tunnel Junctions.** *Y. Shibata¹, K. Sato¹, H. Sukegawa² and H. Kaiju^{1,3}*
1. Faculty of Science and Technology, Keio University, Yokohama, Japan; 2. Research Center for Magnetic and Spintronic Materials, National Institute for Materials Science (NIMS), Tsukuba, Japan; 3. Center for Spintronics Research Network, Keio University, Yokohama, Japan
[View Digest Text](#)
- APA-05. Room-Temperature Magnetoresistance in Nanojunctions Consisting of C8-BTBT Molecules Sandwiched Between Two Magnetic Thin-Film Edges.** *M. Matsuzaka¹, Y. Sasaki², K. Hayashi¹, T. Misawa², T. Komine³, T. Akutagawa⁴, M. Fujioka², J. Nishii² and H. Kaiju^{1,5}*
1. Faculty of Science and Technology, Keio University, Yokohama, Japan; 2. Research Institute for Electronic Science, Hokkaido University, Sapporo, Japan; 3. Graduate School of Science and Engineering, Ibaraki University, Hitachi, Japan; 4. Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Sendai, Japan; 5. Center for Spintronics Research Network, Keio University, Yokohama, Japan
[View Digest Text](#)
- APA-06. Magnetic tunnel junctions utilizing perpendicularly magnetized MnGa ultrathin films grown on sapphire substrate.** *N. Kamata^{1,2}, S. Mizukami^{2,3} and K. Suzuki^{4,2}*
1. Department of Applied Physics, Tohoku University, Sendai, Japan; 2. WPI Advanced Institute for Materials Research, Tohoku University, Sendai, Japan; 3. Center for Science and Innovation in Spintronics (CSIS), Tohoku University, Sendai, Japan; 4. Advanced Science Research Center, Japan Atomic Energy Agency, Naka, Japan
[View Digest Text](#)
- APA-07. Prediction of High Tunnel Magnetoresistance Ratios in (111)-Oriented Junctions with a SrTiO₃ Barrier.** *K. Masuda¹, H. Itoh², Y. Sonobe³, H. Sukegawa¹, S. Mitani¹ and Y. Miura¹*
1. National Institute for Materials Science (NIMS), Tsukuba, Japan; 2. Kansai University, Suita, Japan; 3. Waseda University, Shinjuku, Japan
[View Digest Text](#)

- APA-08. Optimisation of perpendicular magnetic tunnel junction structures using scanning transmission electron microscopy.** *M. Smith*³, *C. Bull*³, *M.C. Spink*¹, *P. Nutter*³, *C.S. Allen*^{1,2}, *D. Hopkinson*¹ and *T. Thomson*³ *1. Electron Physical Science Imaging Centre (ePSIC), Diamond Light Source Ltd, Didcot, United Kingdom; 2. Department of Materials, University of Oxford, Oxford, United Kingdom; 3. Nano Engineering and Spintronic Technologies (NEST) group, Department of Computer Science, University of Manchester, Manchester, United Kingdom*
[View Digest Text](#)
- APA-09. Extraordinary magnetoresistance in a 2-terminal structure.** *J. Létang*¹, *S. Lumetti*¹, *P. Malagò*¹, *S.D. Costea*², *W. Heuer*³, *J. Kosel*¹ and *M. Ortner*¹ *1. Silicon Austria Labs GmbH, Villach, Austria; 2. Eaton European Innovation Center, Roztoky u Prahy, Czechia; 3. Eaton Industries GmbH, Vienna, Austria*
[View Digest Text](#)
- APA-10. Sawtooth-like giant oscillation of tunnel magnetoresistance in epitaxial Fe/Mg₄Al-O_x/Fe(001) magnetic tunnel junctions.** *T. Scheike*¹, *Z. Wen*¹, *S. Kasai*¹, *H. Sukegawa*¹ and *S. Mitani*¹ *1. National Institute for Materials Science (NIMS), Tsukuba, Japan*
[View Digest Text](#)
- APA-11. Integrating magnetic tunnel junctions with femtosecond laser pulses.** *L. Wang*¹, *W. Zhao*², *X.L. Lin*², *M. Heck*¹ and *B. Koopmans*¹ *1. Eindhoven Hendrik Casimir Institute, Eindhoven University of Technology, Eindhoven, Netherlands; 2. Fert Beijing Institute, MIIT Key Laboratory of Spintronics, Beihang University, Beijing, China*
[View Digest Text](#)

POSTER SESSION

Session APB SPIN-ORBITRONICS III (Poster Session)

Guoqiang Yu, Chair
Chinese Academy of Sciences, Beijing, China

- APB-01. Withdrawn**
- APB-02. Withdrawn**
- APB-03. Dzyaloshinskii–Moriya interaction effect on self spin-orbit torque in rare earth-transition metal alloy.** *P. Lee*¹, *C. Lai*¹ and *S. Mangin*² *1. Materials Science and Engineering, National Tsing Hua University, Hsinchu, Taiwan; 2. Physics, Institut Jean Lamour, Nancy, France*
[View Digest Text](#)

- APB-04. Magneto-transport properties and magnetization switching in perpendicular magnetized Mn-rich Heusler alloy $Mn_{2.5}CoAl$.** H. Qin^{1,3}, X. Zhao², R. Han^{1,3}, H. Sun^{1,3} and J. Zhao^{1,3} 1. Institute of Semiconductors, Chinese Academy of Sciences, Beijing, China; 2. Dongguan University of Technology, Dongguan, China; 3. University of Chinese Academy of Sciences, Beijing, China
[View Digest Text](#)
- APB-05. Modulation of perpendicular magnetic anisotropy and spin-orbit torque switching behavior in $D0_{22}$ - Mn_3Ga based heterostructures by interface engineering.** H. Sun^{1,2}, X. Zhao^{1,3}, S. Tong^{1,2}, R. Han^{1,2}, H. Qin^{1,2} and J. Zhao^{1,2} 1. State Key Laboratory of Superlattices and Microstructures, Institute of Semiconductors, Chinese Academy of Sciences, Beijing, China; 2. Center of Materials Science and Optoelectronics Engineering, University of Chinese Academy of Sciences, Beijing, China; 3. International School of Microelectronics, Dongguan University of Technology, Dongguan, China
[View Digest Text](#)
- APB-06. Evidence of orbital current and orbital torques in transition metals using oxidized Cu light element.** B. Bony¹, S. Krishna¹, S. Collin¹, J. George¹, N. Reyren¹, V. Cros¹ and H. Jaffrès¹ 1. Unité Mixte de Physique CNRS/Thales, Palaiseau, France
[View Digest Text](#)
- APB-07. Spin-orbit torques of three spin polarizations in magnetic trilayers.** J. Ryu¹, R. Thompson³, J. Park¹, S. Kim^{1,2}, G. Choi¹, J. Kang¹, H. Jeong¹, M. Kohda^{3,4}, J. Yuk¹, J. Nitta^{3,4}, K. Lee² and B. Park¹ 1. Department of Materials Science and Engineering, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, The Republic of Korea; 2. Department of Physics, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, The Republic of Korea; 3. Department of Materials Science, Tohoku University, Sendai, Japan; 4. Spintronics Research Network, Tohoku University, Sendai, Japan
[View Digest Text](#)
- APB-08. Withdrawn**
- APB-09. Magnetic Switching Properties for Synthetic Antiferromagnetic Layers with Perpendicular Easy Magnetic Anisotropy.** N. Tezuka¹, S. Fujikawa¹, H. Akatani¹, M. Matsuura¹, S. Sugimoto¹ and Y. Saito¹ 1. Tohoku University, Sendai, Japan
[View Digest Text](#)

APB-10. Magneto-optical detection of orbital Hall effect. K. Ko¹, Y. Choi¹, D. Jo², D. Go^{3,4}, K. Kim², H. Park⁵, C. Kim^{6,7}, G. Choi^{1,8} and H. Lee^{2,9} *1. Department of Energy Science, Sungkyunkwan University, Suwon, The Republic of Korea; 2. Department of Physics, Pohang University of Science and Technology, Pohang, The Republic of Korea; 3. Peter Grunberg Institut and Institute for Advanced Simulation, Forschungszentrum Julich and JARA, Julich, Germany; 4. Graduate School of Excellence Materials Science in Mainz, Mainz, Germany; 5. Center for Spintronics, Korea Institute of Science and Technology, Seoul, The Republic of Korea; 6. Department of Physics and Astronomy, Seoul National University, Seoul, The Republic of Korea; 7. Center for Correlated Electron Systems, Institute for Basic Science, Seoul, The Republic of Korea; 8. Center for Integrated Nanostructure Physics, Institute for Basic Science, Suwon, The Republic of Korea; 9. Asia Pacific Center for Theoretical Physics, Pohang, The Republic of Korea*
[View Digest Text](#)

APB-11. Withdrawn

APB-12. Chiral interlayer exchange coupling for asymmetric domain wall propagation in field-free magnetization switching. J. Zhou¹, L. Huang¹, H. Chung¹, J. Huang², T. Suraj², D.J. Lin², J. Qiu¹, S. Chen¹, S.L. Yap¹, Y. Toh¹, S. Ng¹, H. Tan¹, A. Soumyanarayanan^{1,2} and S. Lim¹ *1. Institute of Materials Research and Engineering, A*STAR, Singapore, Singapore; 2. Physics, National University of Singapore, Singapore*
[View Digest Text](#)

APB-13. Withdrawn

APB-14. Domain-Wall Tilting Angle Dependence on Current Pulse Width. M. Kim¹, L. Seong-Hyub¹, M. Kim¹ and S. Choe¹ *1. Physics and Astronomy, Seoul National University, Seoul, The Republic of Korea*
[View Digest Text](#)

POSTER SESSION

Session APC
SPIN ORBITRONICS IV
(Poster Session)

Weigang Wang, Chair
University of Arizona, Tucson, AZ, United States

APC-01. Effect of non-uniform current density application in a heavy metal/ferrimagnet structure. M. Bazrov¹, M. Stebliy¹, Z. Namsaraev¹, M. Letushev¹, A. Kozlov¹, V. Antonov¹, E. Stebliy¹, A. Davydenko¹, A. Ognev¹, Y. Shiota², A. Samardak¹ and T. Ono^{1,2} *1. Laboratory of Spin-Orbitronics, Institute of High Technologies and Advanced Materials, Far Eastern Federal University, Vladivostok, Russian Federation; 2. Institute for Chemical Research, Kyoto, Japan*
[View Digest Text](#)

- APC-02. Orbital chiral exchange interaction.** R. Chen¹, D. Go², Y. Mokrousov² and W. Zhao¹ *1. Beihang University, Beijing, China; 2. Forschungszentrum Julich, Jülich, Germany*
[View Digest Text](#)
- APC-03. Implementation of Nonlocal Exchange Potential and Spin-orbit Coupling in First-principles Magnetic Property Calculation.** T. Huang¹ and Y. Tang¹ *1. National Central University, Taoyuan, Taiwan*
[View Digest Text](#)
- APC-04. RKKY Coupling Effect on Coercivity of L10 FePt Thin-Film.** E. Lim¹, D. Jeong¹, W. Choi¹, S. Lee¹ and S. Kim¹ *1. Physics, University of Ulsan, Ulsan, The Republic of Korea*
[View Digest Text](#)
- APC-05. Detection of noncollinear ordering in CoTb ferrimagnetic alloy under an action of spin orbit torque.** Z. Namsaraev¹, M. Bazrov¹, M. Letushev¹, V. Antonov¹, A. Ognev¹, A.S. Samardak¹ and M. Steblyi¹ *1. Laboratory of Spin-Orbitronics, Institute of High Technologies and Advanced Materials, Far Eastern Federal University, Vladivostok, Russian Federation*
[View Digest Text](#)
- APC-06. Withdrawn**
- APC-07. Type-Y magnetic tunnel junctions with CoFeB doped tungsten as spin current source.** M. Zhao¹, R. Zhang¹, C. Wan¹, X. Luo¹ and X. Han¹ *1. Institute of Physics, Chinese Academy of Sciences, Beijing, China*
[View Digest Text](#)
- APC-08. Spin-orbit torque induced magnetization switching in perpendicularly magnetized MnGa/Fe bilayer grown on GaAs.** M. Ogawa¹, T. Hara¹, S. Hasebe¹, M. Yamanouchi¹ and T. Uemura¹ *1. Grad. School of Information Science and Technology, Hokkaido University, Sapporo, Japan*
[View Digest Text](#)
- APC-09. Microscopic Calculation of Dzyaloshinskii-Moriya Interaction in a Rashba Ferromagnet.** Y. Hayakawa¹, Y. Imai¹ and H. Kohno¹ *1. Nagoya University, Nagoya, Japan*
[View Digest Text](#)
- APC-10. Spin Orbit Torques Magnetization Switching In Tb/Gd/FeCo Multilayer.** Y. Fujita¹, D. Oshima¹, S. Takahashi³, Y. Hirayama³ and T. Kato^{1,2} *1. Department of Electronics, Nagoya University, Nagoya, Japan; 2. Institute of Materials and Systems for Sustainability, Nagoya University, Nagoya, Japan; 3. Samsung Device Solutions R&D Japan, Samsung Japan Corporation, Yokohama, Japan*
[View Digest Text](#)
- APC-11. Improvement of Spin-Orbit Torque Efficiency for High Speed Operation of Tb/Co-Based Skyrmions.** K. Tokunaga¹, Y. Kurokawa¹, L. Zhang¹, R. Satone¹ and H. Yuasa¹ *1. Kyushu University, Fukuoka, Japan*
[View Digest Text](#)

- APC-12. Non-Volatile Electric-Field Control of Spin-Orbit Torques in Perpendicular Ferromagnet – SrTiO₃ System.** A. Kandazoglou¹, T. Frottier¹, C. Grezes¹, M. Cosset-Cheneau¹, L. Vicente Arche², P. Sgarro¹, P. Noël^{1,3}, S. Teresi¹, M. Culot¹, L. Hutin¹, G. Prenat¹, S. Auffret¹, K. Garello¹, M. Bibes², L. Vila¹ and J. Attané¹ *1. Université Grenoble Alpes / CEA / IRIG/ SPINTEC, Grenoble, France; 2. Unité Mixte de Physique, CNRS, Thales, Université Paris-Saclay, Palaiseau, France; 3. Department of Materials, ETH Zurich, Zurich, Switzerland*
[View Digest Text](#)

- APC-13. Separation of rare earth- and transition metal-contributions to the interfacial Dzyaloshinskii-Moriya interaction in ferrimagnetic Co-Gd alloys.** Z. Zhao¹, S. Dan², T. Lin², Z. Xie¹, D. Zhao¹, J. Zhao¹, N. Lei² and D. Wei¹ *1. Institute of Semiconductors, Chinese Academy of Sciences, Beijing, China; 2. School of Integrated Circuit Science and Engineering, Beihang University, Beijing, China*
[View Digest Text](#)

ORAL SESSIONS

Session BOA CHIRALITY DRIVEN PHENOMENA IN NON-COLINEAR ANTIFERROMAGNETS

YoshiChika Otani, Chair
Tokyo Daigaku, Kashiwa, Japan

- BOA-01. Chirality-Driven Spintronic Device: Non-Collinear Antiferromagnet and Spin Selectivity. (Invited)** S. Miwa¹
1. The Institute for Solid State Physics (ISSP), The University of Tokyo, Kashiwa, Japan
[View Digest Text](#)
- BOA-02. Current-Induced Field-Free Switching in Magnetic Multilayers with Interlayer Chiral Exchange.** Y. Huang¹, Y. Li¹, C. Huang¹, Y. Liu¹, W. Liao¹, T. Chen¹ and C. Pai¹
1. Department of Material Science and Engineering, National Taiwan University, Taipei, Taiwan
[View Digest Text](#)
- BOA-03. Unconventional octupole dynamics of a non-collinear antiferromagnet driven by spin-orbit torque. (Invited)** J. Yoon^{1,2}, P. Zhang², C. Chou², Y. Takeuchi¹, T. Uchimura¹, J. Hou², J. Han¹, S. Kanai¹, H. Ohno¹, S. Fukami¹ and L. Liu²
1. Tohoku University, Sendai, Japan; 2. Massachusetts Institute of Technology, Cambridge, MA, United States
[View Digest Text](#)
- BOA-04. Electrical manipulation of fast magnetic octupole domain-wall motion in noncollinear antiferromagnets.** M. Wu^{1,2}, T. Chen³, T. Nomoto¹, H. Isshiki¹, Y. Nakatani⁴, T. Tomita¹, K. Kondou², R. Arita^{1,2}, S. Nakatsuji¹ and Y. Otani^{1,2} *1. The University of Tokyo, Tokyo, Japan; 2. RIKEN, Wako, Japan; 3. Southeast University, Nanjing, China; 4. University of Electro-Communications, Tokyo, Japan*
[View Digest Text](#)

- BOA-05. Magnetization Switching in Single Layer Non-Collinear Antiferromagnet Mn_3Sn .** *H. Xie*¹, *X. Chen*¹, *Q. Zhang*^{1,2}, *Z. Mu*³, *X. Zhang*², *B. Yan*⁴ and *Y. Wu*¹ *1. Electrical and Computer Engineering, National University of Singapore, Singapore; 2. Department of Electrical and Electronic Engineering, Southern University of Science and Technology, Shenzhen, China; 3. State Key Laboratory of Functional Materials for Informatics, Chinese Academy of Sciences, Shanghai, China; 4. Department of Condensed Matter Physics, Weizmann Institute of Science, Rehovot, Israel*
[View Digest Text](#)
- BOA-06. Tunneling Magnetoresistance in Noncollinear Antiferromagnetic Tunnel Junctions.** *J. Dong*¹, *M. Zhu*¹, *E.Y. Tsymbal*² and *J. Zhang*¹ *1. Physics, Hua Zhong University of Science and Technology, Wuhan, China; 2. Center for Materials and Nanoscience, University of Nebraska-Lincoln, Lincoln, NE, United States*
[View Digest Text](#)
- BOA-07. Crystal Orientation Control of the Weyl Antiferromagnet Mn_3Sn in its Film Capped with a Tantalum Layer.** *T. Matsuo*¹, *T. Higo*^{1,4}, *H. Tsai*^{1,4}, *D. Nishio-Hamane*², *K. Kondou*^{3,4}, *S. Miwa*^{2,4}, *Y. Otani*^{2,3} and *S. Nakatsuji*^{1,2} *1. Department of Physics, The University of Tokyo, Bunkyo-ku, Japan; 2. ISSP, The University of Tokyo, Kashiwa, Japan; 3. RIKEN, Wako, Japan; 4. CREST, Saitama, Japan*
[View Digest Text](#)
- BOA-08. Anomalous Hall effect induced by spin fluctuations in a triangular lattice antiferromagnet.** *M. Watanabe*¹, *R. Asama*¹, *M. Tokuda*¹, *S. Suzuki*¹, *N. Jiang*¹, *H.K. Yoshida*² and *Y. Niimi*¹ *1. Department of Physics, Osaka University, Toyonaka, Japan; 2. Department of Physics, Hokkaido University, Sapporo, Japan*
[View Digest Text](#)
- BOA-09. Anisotropic spontaneous anomalous Hall effect in altermagnetic Mn_5Si_3 epitaxial films.** *M. Leiviskä*¹, *R. Lopes Seeger*¹, *I. Kounta*², *H. Reichlova*^{3,5}, *L. Smejkal*⁶, *S. Beckert*³, *J. Rial*¹, *A. Badura*⁴, *D. Kriegner*^{3,5}, *I. Joumard*¹, *E. Schmoranzzerová*⁴, *J. Sinova*⁶, *T. Jungwirth*⁵, *S. Goennenwein*⁷, *L. Michez*², *O. Gomonay*⁶ and *V. Baltz*¹ *1. CEA-SPINTEC, Grenoble, France; 2. Aix-Marseille University, CNRS, CINaM, Marseille, France; 3. Institute of Solid State and Materials Physics, TU Dresden, Dresden, Germany; 4. Department of Chemical Physics and Optics, Charles University, Prague, Czechia; 5. Institute of Physics, Czech Academy of Sciences, Prague, Czechia; 6. Institute for Physics, Johannes Gutenberg University Mainz, Mainz, Germany; 7. Department of Physics, University of Konstanz, Konstanz, Germany*
[View Digest Text](#)
- BOA-10. Spin Hall angle of $L1_2$ -ordered antiferromagnetic Mn_3Ir evaluated by terahertz emission spectroscopy.** *H. Mao*¹, *Y. Sasaki*², *Y. Kobayashi*^{3,4}, *S. Isogami*², *T. Ono*^{3,4}, *T. Moriyama*^{3,4}, *Y. Takahashi*² and *K. Yamada*¹ *1. Physics, Tokyo Institute of Technology, Tokyo, Japan; 2. National Institute for Materials Science, Tsukuba, Japan; 3. Institute for Chemical Research, Kyoto University, Uji, Japan; 4. Center for Spintronics Research Network, Kyoto University, Uji, Japan*
[View Digest Text](#)

- BOA-11. Large anomalous Hall conductivity in compensated ferrimagnetic RFe_3 ($R = Er, Dy, Tb$) kagome magnets.** J. Liang^{1,2}, X. Xi¹, W. Wang³ and Y. Lau^{1,2} 1. Institute of Physics, Chinese Academy of Sciences, Beijing, China; 2. University of Chinese Academy of Sciences, Beijing, China; 3. School of Electronic and Information Engineering, Tiangong University, Tianjin, China
[View Digest Text](#)

- BOA-12. $Mn_{4-x}Ga_xN$ Thin Films for Ferrimagnetic Spintronics.** L. Prendeville¹, Y. He¹, P. Jimenez Cervero¹, S. Lenne¹, J. Coey¹ and K. Rode¹ 1. Trinity College Dublin, Dublin, Ireland
[View Digest Text](#)

ORAL SESSIONS

Session BOB MAGNONICS, INSULATRONICS, AND HEULSER ALLOYS

Martin Jourdan, Chair
Johannes Gutenberg University Mainz, Mainz, Germany

- BOB-01. Femtosecond coherent magnonic manipulation of antiferromagnetism. (Invited)** D. Bossini¹ 1. University of Konstanz, Konstanz, Germany
[View Digest Text](#)
- BOB-02. Quantum dynamics and transport of spins in magnets. (Invited)** E. Saitoh¹, T. Kikkawa¹, T. Hioki², H. Shimizu¹, Y. Shiomi³, D. Hirobe⁴ and J. Lustikova² 1. Department of Applied Physics, Graduate School of Engineering, The University of Tokyo, Tokyo, Japan; 2. Advanced Institute for Materials Research, Tohoku University, Sendai, Japan; 3. Department of Basic Science, Graduate School of Arts and Sciences, The University of Tokyo, Tokyo, Japan; 4. Department of Physics, Shizuoka University, Shizuoka, Japan
[View Digest Text](#)
- BOB-03. Anisotropic long-distance magnon spin transport in the antiferromagnetic insulator $YFeO_3$.** E. Galindez Ruales¹, S. Das¹, A. Ross¹, X. Ma², S. Becker¹, C. Schmitt¹, S. Filnov¹, F. van Duijn^{3,4}, F. Fuhrmann¹, M. Syskaki¹, U. Ebels³, V. Baltz³, A. Barra⁴, H. Chen², G. Jakob¹, S. Cao², J. Sinova¹, O. Gomonay¹, R. Lebrun⁵ and M. Kläui^{1,6} 1. Institut für Physik, Johannes Gutenberg University, Mainz, Germany; 2. Department of Physics, Materials Genome Institute, International Center for Quantum and Molecular Structures, Shanghai University, Shanghai, China; 3. Univ. Grenoble Alpes, CNRS, CEA, Grenoble INP, SPINTEC, CNRS, University of Paris-Sud, Grenoble, France; 4. Laboratoire National des Champs Magnétiques Intenses, CNRS-UGA-UPS-INSA-EMFL, Grenoble, France; 5. Unite Mixte de Physique CNRS, Thales, Université Paris-Saclay, Palaiseau, France; 6. Center for Quantum Spintronics, Norwegian University of Science and Technology, Trondheim, Norway
[View Digest Text](#)

- BOB-04. Spin Current Transmission in (111) and (001) Crystal Oriented NiO Films Probed by Thermo-spin Effects.** T. Yamazaki¹, T. Seki¹ and K. Takanashi^{1,2} 1. Institute for Materials Research, Tohoku University, Sendai, Japan; 2. Advanced Science Research Center, Japan Atomic Energy Agency, Tokai, Japan
[View Digest Text](#)
- BOB-05. Spin structures in antiferromagnetic NiO/Pt bilayers.** H. Meer¹, C. Schmitt¹, L. Sanchez-Tejerina², O. Gomonay¹, S. Wust³, R. Ramos⁴, P. Herrgen³, F. Schreiber¹, F. Fuhrmann¹, A. Ross¹, B. Bednarz¹, A. Rajan¹, S. Ding¹, M. Filianina¹, F. Maccherozzi⁷, D. Backes⁷, M. Foerster⁸, M. Angel⁸, F. Kronast⁹, S. Valencia⁹, M. Mohamad-Assaad⁹, A. Kleibert¹⁰, J. Sinova¹, M. Aeschlimann³, G. Finocchio⁶, E. Saitoh⁵, L. Baldrati¹ and M. Kläui¹ 1. Johannes Gutenberg University, Mainz, Germany; 2. Universidad de Salamanca, Salamanca, Spain; 3. TU Kaiserslautern, Kaiserslautern, Germany; 4. Universidade de Santiago de Compostela, Santiago de Compostela, Spain; 5. The University of Tokyo, Tokyo, Japan; 6. University of Messina, Messina, Italy; 7. Diamond Light Source Ltd, Didcot, United Kingdom; 8. ALBA Synchrotron Light Facility, Barcelona, Spain; 9. Helmholtz-Zentrum Berlin für Materialien und Energie, Berlin, Germany; 10. Swiss Light Source, Paul Scherrer Institut, Villigen, Switzerland
[View Digest Text](#)
- BOB-06. Withdrawn**
- BOB-07. Sign Change of Spin-Orbit Torque in Pt/NiO/CoFeB Structures.** Z. Dapeng¹ and W. Zhao¹ 1. Beihang University, Beijing, China
[View Digest Text](#)
- BOB-08. Electric field control of interfacial antiferromagnetic moment in Pt/Cr₂O₃/Pt epitaxial trilayer.** K. Ujimoto¹, H. Sameshima², H. Sakurai¹, K. Toyoki¹, R. Nakatani¹ and Y. Shiratsuchi¹ 1. Osaka University, Suita, Japan; 2. Osaka University, Suita, Japan
[View Digest Text](#)
- BOB-09. Finite size effect and dimensional crossover in antiferromagnetic epitaxial Cr₂O₃ thin films.** H. Sameshima¹, K. Ujimoto¹, R. Tsutsumi¹, K. Toyoki^{1,2}, R. Nakatani^{1,2} and Y. Shiratsuchi^{1,2} 1. Graduate School of Engineering, Osaka University, Suita, Japan; 2. Institute for Open and Transdisciplinary Research Initiatives, Osaka University, Suita, Japan
[View Digest Text](#)
- BOB-10. Withdrawn**
- BOB-11. Spin Transport, Unidirectional Bias and the Effect of Molecular Interfaces in a Metallic Antiferromagnet.** H. Vasili¹, S. Alotibi¹, M. Valvidares², P. Gargiani², M. Rogers¹, M. Ali¹, T. Moorsom¹, G. Burnell¹, B.J. Hickey¹ and O. Cespedes¹ 1. University of Leeds, Leeds, United Kingdom; 2. ALBA Synchrotron, Barcelona, Spain
[View Digest Text](#)

BOB-12. Investigation on magnetic ordering of antiferromagnetic thin films by means of magnetoresistance effect measurement. *S. Iguchi*¹, *S. Fujiwara*¹, *K. Toyoki*¹, *Y. Shiratsuchi*¹ and *R. Nakatani*¹ *1. Osaka University, Suita-shi, Japan*
[View Digest Text](#)

BOB-13. Tetragonal distortion induced giant perpendicular magnetic anisotropy in half-metallic Heusler alloy Mn₂FeGa. *P.D. Bentley*¹, *S. Li*¹, *K. Masuda*², *Y. Miura*^{2,5}, *Y. Du*¹, *T. Mitsui*^{1,3}, *K. Fujiwara*³, *Y. Kobayashi*⁴, *T. Guo*⁶, *G. Yu*^{6,7}, *C. Suzuki*¹, *S. Yamamoto*¹, *F. Zheng*⁸, *Y. Sakuraba*² and *S. Sakai*¹ *1. National Institute for Quantum Science and Technology, Takasaki, Japan; 2. Research Center for Magnetic and Spintronic Materials, National Institute for Materials Science (NIMS), Tsukuba, Japan; 3. National Institutes for Quantum Science and Technology, Sayo, Japan; 4. Institute for Integrated Radiation and Nuclear Science, Kyoto University, Kumatori, Japan; 5. Center for Spintronics Research Network, Osaka University, Osaka, Japan; 6. Songshan Lake Materials Laboratory, Dongguan, China; 7. Beijing National Laboratory for Condensed Matter Physics, Beijing, China; 8. School of Physics and Electronic-Electrical Engineering, Ningxia University, Yinchuan, China*
[View Digest Text](#)

BOB-14. Withdrawn

ORAL SESSIONS

Session BOC

SPIN TORQUES IN ANTIFERROMAGNETS

Jeffrey Bokor, Chair

University of California, Berkeley, CA, United States

BOC-01. Geometric rotation of spin polarization for anisotropic and field-free spin orbit torque switching. (Invited) *C. Pan*¹, *Y. Lin*¹, *Y. Yang*², *S. Zhou*¹ and *X. Qiu*¹ *1. School of Physics Science and Engineering, Tongji University, Shanghai, China; 2. School of Information Science and Technology, ShanghaiTech University, Shanghai, China*
[View Digest Text](#)

BOC-02. Spin-Orbit Torque-Induced Field-Free Switching of a Perpendicular Antiferromagnet. *Z. Xu*¹, *J. Ren*¹, *Z. Yuan*¹, *Y. Xin*¹, *X. Zhang*¹ and *Z. Zhu*^{1,2} *1. ShanghaiTech University, Shanghai, China; 2. Shanghai Engineering Research Center of Energy Efficient and Custom AI IC, Shanghaitech University, Shanghai, China*
[View Digest Text](#)

BOC-03. Demonstration of PtMn-based Field-Free Switching SOT MRAM. *C. Lin*^{1,2}, *C. Tseng*¹, *Y. Yen*¹, *C. Lai*¹, *K. Li*², *J. Shieh*², *J. Sun*², *J. Wei*³ and *D. Tang*³ *1. Material Science, National Tsing Hua University, Hsinchu, Taiwan; 2. Taiwan Semiconductor Research Institute, Hsinchu, Taiwan; 3. Electronics and Optoelectronics Research Laboratories, Industrial Technology Research Institute, Hsinchu, Taiwan*
[View Digest Text](#)

- BOC-04. Acoustically Assisted Field Free Spin Orbit Torque Magnetization Switching of Out of Plane Nano Magnet.** P.K. Mishra¹, M. Sravani¹, S. M.¹ and S. Bhuktare¹
1. Electrical Engineering, Indian Institute of Technology, Tirupati, India
[View Digest Text](#)
- BOC-05. Current-induced Néel order switching facilitated by magnetic phase transition.** H. Wu¹, H. Zhang³, B. Wang⁴, Y. Guo¹, R. Cheng³ and K. Wang² 1. Songshan Lake Materials Laboratory, Dongguan, China; 2. University of California, Los Angeles, Los Angeles, CA, United States; 3. University of California, Riverside, Riverside, CA, United States; 4. Ningbo University, Ningbo, China
[View Digest Text](#)
- BOC-06. Electrical switching of insulating antiferromagnet/heavy metal bilayers.** C. Schmitt¹, H. Meer¹, O. Gomonay¹, R. Ramos^{2,3}, A. Rajan¹, F. Schreiber¹, G. Beneke¹, A. Kumar¹, T. Sparmann¹, B. Bednarz¹, M. Foerster⁴, M. Angel⁴, J. Sinova¹, E. Saitoh^{2,5}, L. Baldrati¹ and M. Kläui^{1,6}
1. Johannes Gutenberg University, Mainz, Germany; 2. Tohoku University, Sendai, Japan; 3. Universidad de Santiago, Santiago de Compostela, Spain; 4. ALBA Synchrotron Light Facility, Barcelona, Spain; 5. The University of Tokyo, Tokyo, Japan; 6. Graduate School of Excellence Materials Science in Mainz, Mainz, Germany
[View Digest Text](#)
- BOC-07. Frequency-selective damping modulation induced by spin-orbit torque in a synthetic antiferromagnet/platinum heterostructure.** S. Karube¹, T. Hoshika¹, C. Zhang¹, M. Kohda¹ and J. Nitta¹ 1. Tohoku University, Sendai, Japan
[View Digest Text](#)
- BOC-08. Effect of an antiferromagnetic order on tailoring Dzyaloshinskii-Moriya interaction in Pt/Co/IrMn trilayer.** S. Chen¹, C. Yang² and C. Lai¹ 1. National Tsing Hua University, Hsinchu, Taiwan; 2. National Yang Ming Chiao Tung University, Hsinchu, Taiwan
[View Digest Text](#)
- BOC-09. Simulation of the Back-Hopping Effect in Spin-Transfer Torque Driven Magnetic Tunnel Junctions Based on a Free-Electron Model.** P. Flauger^{1,2}, C. Abert¹ and D. Suess^{1,2}
1. Faculty of Physics, University of Vienna, Vienna, Austria; 2. University of Vienna Research Platform MMM Mathematics - Magnetism - Materials, Vienna, Austria
[View Digest Text](#)
- BOC-10. Prediction of Tunneling Magnetoresistance and Spin-Transfer Torque Effects in Antiferromagnetic Tunnel Junctions.** D. Shao¹, S. Zhang², Y. Jiang^{1,3}, J. Ding⁴ and E.Y. Tsymbal⁵ 1. Institute of Solid State Physics, HFIPS, Chinese Academy of Sciences, Hefei, China; 2. Beijing University of Chemical Technology, Beijing, China; 3. University of Science and Technology of China, Hefei, China; 4. Henan University of Engineering, Zhengzhou, China; 5. University of Nebraska, Lincoln, NE, United States
[View Digest Text](#)

BOC-11. Tuning Spin-Orbit Torque Generation Via Seed/Heavy Metal Interface Modification. T. Jin¹, G.J. Lim¹, H. Poh¹, S. Wu¹, F. Tan¹ and W. Lew¹ *1. Nanyang Technological University, Singapore, Singapore*
[View Digest Text](#)

BOC-12. Two-Terminal Magnetoresistance in Lateral Spin-Valve Devices: Scaling with Contact Resistance. A.M. Spiesser¹, R. Jansen¹, H. Saito¹ and S. Yuasa¹ *1. Research Center for Emerging Computing Technologies, National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan*
[View Digest Text](#)

ORAL SESSIONS

Session BOD

SWITCHING AND ULTRAFAST SPIN DYNAMICS IN ANTIFERROMAGNETS

Maciej Dabrowski, Chair

University of Exeter, Exeter, United Kingdom

BOD-01. Ultrafast Spin-Orbit-Torque-Induced Coherent Magnetization Switching with Picosecond Current Pulses. *(Invited)* J. Bokor^{1,2}, D. Polley^{1,2}, A. Pattabi¹, A. Rastogi¹, J. Hong¹, K. Jhuria^{2,3}, E. Díaz³, A. Lemaitre⁴, M. Hehn³ and J. Gorchon³ *1. EECS, University of California, Berkeley, Berkeley, CA, United States; 2. Lawrence Berkeley National Laboratory, Berkeley, CA, United States; 3. CNRS, Université de Lorraine, Nancy, France; 4. C2N, CNRS, Université Paris-Sud, Palaiseau, France*
[View Digest Text](#)

BOD-02. Manipulating exchange bias with a single femtosecond laser pulse. Z. Guo^{1,2*}, G. Malinowski², Z. Boyu¹, J. Wang³, W. Zhang^{1,2}, H. Wang^{1,2}, Y. Peng², P. Vallobra¹, S. Mangin², W. Zhao¹ and M. Hehn² *1. Beihang University, Beijing, China; 2. Université de Lorraine, Nancy, France; 3. Guangdong University of Technology, Guangzhou, China*
[View Digest Text](#)

BOD-03. Writing information by current pulses in antiferromagnetic Mn₂Au. M. Jourdan¹, S. Reimers¹, Y. Lytvynenko^{1,2}, Y. Niu³, E. Golias³, B. Sarpi⁴, L. Veiga⁴, T. Denneulin⁵, A. Kovács⁵, R.E. Dunin-Borkowski⁵, J. Bläßer¹ and M. Kläui¹ *1. Institute of Physics, Johannes Gutenberg University Mainz, Mainz, Germany; 2. Institute of Magnetism, NAS and MES of Ukraine, Kyiv, Ukraine; 3. MAX IV Laboratory, Lund, Sweden; 4. Diamond Light Source Ltd, Didcot, United Kingdom; 5. Forschungszentrum Julich, Julich, Germany*
[View Digest Text](#)

- BOD-04. Switching of magnetization in synthetic antiferromagnet probed by time-resolved magneto-optical Kerr effect.** *M. Ma*¹, *Z. Li*¹, *X. Ruan*¹, *J. Wu*², *R. Wang*¹, *J. Du*³, *X. Lu*¹ and *Y. Xu*^{1,2} *1. School of Electronic Science and Engineering, Nanjing University, Nanjing, China; 2. Department of Electronic and Physics, The University of York, York, United Kingdom; 3. Department of Physics, Nanjing University, Nanjing, China*
[View Digest Text](#)
- BOD-05. Ultrafast Magnetism of Antiferromagnets. (Invited)** *A. Kime*¹ *1. Radboud University, Nijmegen, Netherlands*
[View Digest Text](#)
- BOD-06. Revisiting a hidden order at an ferromagnet/antiferromagnet interface and its switching dynamics.** *C. Yang*¹, *S. Chen*² and *C. Lai*² *1. National Chiao Tung University, Hsinchu, Taiwan; 2. National Tsing Hua University, Hsinchu, Taiwan*
[View Digest Text](#)
- BOD-07. Atomistic simulations of ultrafast, optically induced switching dynamics in antiferromagnets.** *T. Dannegger*¹, *M. Berritta*², *K. Carva*³, *P. Oppeneer*² and *U. Nowak*¹
1. University of Konstanz, Konstanz, Germany; 2. Uppsala University, Uppsala, Sweden; 3. Charles University in Prague, Prague, Czechia
[View Digest Text](#)
- BOD-08. Antiferromagnetic Droplet Soliton in a Nano-Contact Spin-Transfer Torque Oscillator.** *R. Khymyn*¹, *R. Ovcharov*¹, *B. Ivanov*^{2,3} and *J. Åkerman*¹ *1. University of Gothenburg, Gothenburg, Sweden; 2. Institute of Magnetism of NASU and MESU, Kyiv, Ukraine; 3. Radboud University, Nijmegen, Netherlands*
[View Digest Text](#)
- BOD-09. Exchange-spring-magnet-based spin-torque nano-oscillators.** *S. Jiang*^{1,2}, *S. Chung*³, *Q.T. Le*² and *J. Åkerman*^{2,4}
1. South China University of Technology, Guangzhou, China; 2. University of Gothenburg, Gothenburg, Sweden; 3. Korea National University of Education, Cheongju, The Democratic People's Republic of Korea; 4. KTH Royal Institute of Technology, Stockholm, Sweden
[View Digest Text](#)
- BOD-10. Microscopic theory of spin-transfer torques in antiferromagnets.** *J.J. Nakane*¹ and *H. Kohno*¹ *1. Nagoya University, Nagoya, Japan*
[View Digest Text](#)

Session BPA
ANTIFERROMAGNETIC SPINTRONICS
(Poster Session)

Xuepeng Qiu, Co-Chair
 Tongji University, Shanghai, China

Shinji Miwa, Co-Chair
 The University of Tokyo, Kashiwa, Japan

BPA-01. Ultrafast spin dynamics of non-collinear antiferromagnet Mn_3Sn driven by an optical spin-orbit torque. *W. Lee¹, B. Park¹, K. Lee¹ and G. Choi²* 1. *Korea Advanced Institute of Science and Technology (KAIST), Daejeon, The Republic of Korea;* 2. *Sungkyunkwan University, Suwon, The Republic of Korea*

[View Digest Text](#)

BPA-02. Withdrawn

BPA-03. Role of Field-Like Torque in Magnetization Switching of CoTb alloys. *H. Wang^{1,2}, P. Vallobra^{1,2}, S. Peng^{1,2} and W. Zhao^{1,2}* 1. *School of Integrated Circuit Science and Engineering, Beihang University, Beijing, China;* 2. *Hefei Innovation Research Institute, Beihang University, Hefei, China*

[View Digest Text](#)

BPA-04. Exchange bias in Pd/Co/CoO films with perpendicular magnetic anisotropy. *E. Tarasov^{1,2}, V. Shatilov¹, I. Tkachenko² and A. Kozlov¹* 1. *Far Eastern Federal University, Vladivostok, Russian Federation;* 2. *Institute of Chemistry FEB RAS, Vladivostok, Russian Federation*

[View Digest Text](#)

BPA-05. Magnetic proximity effect in antiferromagnetic composite thin films: impact of triggering perpendicular magnetic anisotropy. *B. Wang¹, T. Li¹, C. Hsiao¹, B. Liao¹, M. Tsai^{1,2}, T. Chuang³ and D. Wei³* 1. *Department of Physics, National Changhua University of Education, Changhua, Taiwan;* 2. *Institute of Photonics Technologies, National Tsing Hua University, Hsinchu, Taiwan;* 3. *National Synchrotron Radiation Research Center, Hsinchu, Taiwan*

[View Digest Text](#)

BPA-06. Manipulation of exchange bias in perpendicularly magnetized IrMn/CoFeB/MgO structures. *J. Liu^{1,2}, S. Peng^{1,2}, J. Lu^{1,2}, D. Zhu¹, W. Li^{1,2}, J. Du¹, Z. Liu¹ and W. Zhao^{1,2}* 1. *Fert Beijing Institute, School of Integrated Science and Engineering, Beijing Advanced Innovation Center for Big Data and Brain Computing, Beihang University, Beijing, China;* 2. *Hefei Innovation Research Institute, Beihang University, Beijing, China*

[View Digest Text](#)

- BPA-07. Size dependence of critical current density and magnetization switching in CoFeB-based magnetic tunnel junction.** R. Phoomatna¹, A. Meo^{1,2}, R.W. Chantrell³, J. Chureemart¹ and P. Chureemart¹ *1. Physics, Mahasarakham University, Kantarawichai, Thailand; 2. Electrical and Information Engineering, Politecnico of Bari, Bari, Italy; 3. Physics, University of York, York, United Kingdom*
[View Digest Text](#)
- BPA-08. Enhanced spin torque efficiency in the W-CoFeB structures by metallic antiferromagnetic insertion.** Q. Xia¹, C. Wang¹, D. Zhu¹ and W. Zhao¹ *1. Beihang University, Beijing, China*
[View Digest Text](#)
- BPA-09. NiO Insertion Effect on Spin-Orbit Torque in Pt/Co System.** T. Morita¹, T. Koyama^{1,2} and D. Chiba^{1,3}
1. SANKEN, Osaka Univ., Osaka, Japan; 2. PRESTO, JST, Saitama, Japan; 3. SRIS, Tohoku Univ., Sendai, Japan
[View Digest Text](#)
- BPA-10. Withdrawn**
- BPA-11. Algebraic decay of non-local spin transport in NiO.** I. Sugiura¹, Y. Kobayashi¹, K. Sugi¹, R. Hisatomi^{1,2}, Y. Shiota¹, T. Ono¹ and T. Moriyama^{1,2} *1. ICR, Kyoto University, Uji, Japan; 2. PRESTO, JST, Kawaguchi, Japan*
[View Digest Text](#)
- BPA-12. Spin dissipation in strained NiO (110) film.** Y. Kobayashi¹, I. Sugiura¹, Y. Shiota^{1,2}, T. Ono^{1,2} and T. Moriyama^{1,2}
1. Institute for Chemical Research, Kyoto University, Uji, Japan; 2. Center for Spintronics Research Network, Kyoto University, Uji, Japan
[View Digest Text](#)
- BPA-13. Spin Hall Magnetoresistance in Antiferromagnetic Insulators.** S. Geprägs¹, M. Opel¹, J. Fischer^{1,2}, P. Schwenke^{1,3}, M. Althammer^{1,4}, H. Huebl^{1,4} and R. Gross^{1,4}
1. Walther-Meißner-Institut, Bayerische Akademie der Wissenschaften, Garching, Germany; 2. CEA-SPINTEC, Grenoble, France; 3. RPTU Kaiserslautern Landau, Kaiserslautern, Germany; 4. TUM School of Natural Sciences, Technical University of Munich, Garching, Germany
[View Digest Text](#)
- BPA-14. Tailoring the spin transport in antiferromagnetic insulators.** E. Galindez Ruales¹, S. Filnov¹, C. Schmitt¹, F. Fuhrmann¹, M. Syskaki¹, G. Jakob¹, O. Gomonay¹ and M. Kläui^{1,2} *1. Institut für Physik, Johannes Gutenberg University, Mainz, Germany; 2. Center for Quantum Spintronics, Norwegian University of Science and Technology, Trondheim, Norway*
[View Digest Text](#)

- BPA-15. Large Anisotropic Magnetoresistance of FeRh on Room Temperature and its Phase Diagram.** *W. Won*¹, *M. Park*², *T. Lee*¹ and *K. Kim*¹ *1. Physics, KAIST, Daejeon, The Republic of Korea; 2. Physics, Sogang University, Seoul, The Republic of Korea*
[View Digest Text](#)
- BPA-16. Investigation of Hall contribution in FeCo-compensated ferrimagnetic novel structures.** *L. Ye*^{1,2}, *R.C. Bhatt*^{1,2}, *N. Huang*^{1,2} and *T. Wu*^{1,2} *1. Graduate School of Materials Science, National Yunlin University of Science and Technology, Douliu, Taiwan; 2. Taiwan SPIN Research Center, National Yunlin University of Science and Technology, Douliu, Taiwan*
[View Digest Text](#)
- BPA-17. Phase Field Modelling of Magnetoelasticity in Antiferromagnets.** *R.A. Mackay*^{1,2}, *J. Barker*^{1,2} and *S. Fitzgerald*^{2,3} *1. School of Physics and Astronomy, University of Leeds, Leeds, United Kingdom; 2. The Bragg Centre for Materials Research, Leeds, United Kingdom; 3. School of Mathematics, University of Leeds, Leeds, United Kingdom*
[View Digest Text](#)
- BPA-18. Microscopic Theory of Spin Motive Force in Antiferromagnets.** *S. Hirata*¹, *Y. Toda*¹ and *H. Kohno*¹ *1. Department of Physics, Nagoya University, Nagoya, Japan*
[View Digest Text](#)
- BPA-19. The transition from soft to hard exchange bias and oscillation of biasing field with the variation of IrMn thickness.** *A. Joy*¹, *S. Kayal*¹ and *P. Anil Kumar*¹ *1. Physics, Indian Institute of Science Bangalore, Bangalore, India*
[View Digest Text](#)
- BPA-20. Vertical long pillar magnetic memory with two magnetic junctions.** *S. Honda*¹ and *Y. Sonobe*² *1. Department of Pure and Applied Physics, Kansai University, Suita, Japan; 2. Research Organization for Nano & Life Innovation, Waseda University, Shinjuku, Japan*
[View Digest Text](#)

ORAL SESSIONS

Session COA SKYRMION DETECTION, CONTROL, AND COMPUTING

Wanjun Jiang, Chair
 Tsinghua University, Beijing, China

- COA-01. Electrical detection of magnetic skyrmions in a magnetic tunnel junction.** *Y. Guang*¹, *G. Finocchio*², *X. Han*¹ and *G. Yu*¹ *1. Institute of Physics, Chinese Academy of Sciences, Beijing, China; 2. University of Messina, Messina, Italy*
[View Digest Text](#)

- COA-02. Driving skyrmions with high mobility in synthetic ferrimagnets.** *S. Mallick*¹, N. Figueiredo-Prestes¹, Y. Sassi¹, N. Reyren¹, K. Bouzehouane¹, S. Krishnia¹, V. Jeudy², A. Thiaville², T. Denneulin³, R.E. Dunin-Borkowski³, V. Cros¹ and A. Fert¹ *1. Unite Mixte de Physique, CNRS, Thales, Palaiseau, France; 2. Laboratoire de Physique des Solides, Orsay, France; 3. Forschungszentrum Julich, Julich, Germany*
[View Digest Text](#)
- COA-03. Encoding and Multiplexing Information Signals in Magnetic Multilayers with Fractional Skyrmion Tubes.** R. Chen¹, Y. Li¹, Y. Zang¹, *W. Griggs*¹, V. Pavlidis¹ and C. Moutafis¹ *1. Department of Computer Science, University of Manchester, Manchester, United Kingdom*
[View Digest Text](#)
- COA-04. Static and dynamic control of skyrmion chirality in low DMI systems.** *J. Fischer*¹, C. Fillion¹, C. Gueneau¹, F. Ibrahim¹, L. Vojáček¹, A. Fassatoui², S. Pizzini², L. Ranno², L. Cagnon², D. Ourdani³, M. Belmeguenai³, Y. Roussigné³, S. Chérif³, S. Auffret¹, I. Joumard¹, O. Boulle¹, G. Gaudin¹, M. Chshiev¹, L.D. Buda-Prejbeanu¹, C. Baraduc¹ and H. Béa¹ *1. CEA-SPINTEC, Grenoble, France; 2. Institut Néel CNRS, Grenoble, France; 3. LSPM, Villetaneuse, France*
[View Digest Text](#)
- COA-05. Withdrawn**
- COA-06. Reading and Writing Skyrmions in a Magnetic Tunnel Junction.** *A. Soumyanarayanan*^{1,2} *1. A*STAR Institute of Materials Research and Engineering, Singapore, Singapore; 2. Physics, National University of Singapore, Singapore*
[View Digest Text](#)
- COA-07. Skyrmion nucleation in thin films of an antiferromagnet for the next generation spintronic devices. (Invited)** *M. Leiviskä*¹, S. Jenkins², D. Gusakova¹, R.F. Evans² and V. Baltz¹ *1. SPINTEC, Grenoble, France; 2. Physics, University of York, York, United Kingdom*
[View Digest Text](#)
- COA-08. Reservoir Computing with Spin Waves in a Skyrmion Crystal.** *M. Lee*¹ and M. Mochizuki¹ *1. Applied Physics, Waseda University, Shinjuku, Japan*
[View Digest Text](#)
- COA-09. Spatial Metrics for Advancing Skyrmion Reservoir Computing.** *R. Msiska*¹, J. Love¹, J. Mulkers², J. Leliaert² and K. Everschor-Sitte^{1,3} *1. Faculty of Physics, University of Duisburg-Essen, Duisburg, Germany; 2. Department of Solid state sciences, Ghent University, Ghent, Belgium; 3. Center for Nanointegration Duisburg-Essen (CENIDE), Duisburg, Germany*
[View Digest Text](#)

- COA-10. Non-conventional computing using thermal and driven skyrmion dynamics.** M.A. Brems¹, K. Raab¹, J. Zázvorka², G. Beneke¹, T. Winkler¹, J. Rothörl¹, F. Kammerbauer¹, P. Virnau¹, J. Mentink³ and M. Kläui¹ *1. Institute for Physics, Johannes Gutenberg University, Mainz, Germany; 2. Institute of Physics, Charles University in Prague, Prague, Czechia; 3. Institute for Molecules and Physics, Radboud University, AJ Nijmegen, Netherlands*
[View Digest Text](#)
- COA-11. Demonstration of weighted sum using electrical manipulation and detection of magnetic skyrmions.** T. da Câmara Santa Clara Gomes¹, Y. Sassi¹, S. Krishnia¹, D. Sanz Hernandez¹, N. Reyren¹, M. Martin¹, P. Seneor¹, T. Bhatnagar-Schöffmann², D. Ravelosona², D. Querlioz², L. Herrera Diez², J. Grollier¹ and V. Cros¹ *1. Unité Mixte CNRS-Thales, Université Paris Saclay, Palaiseau, France; 2. Centre de Nanosciences et de Nanotechnologies, Palaiseau, France*
[View Digest Text](#)
- COA-12. Experimental demonstration of skyrmionic magnetic tunnel junction and its on-chip learning application.** S. Li¹, A. Du¹, Y. Wang², X. Wang¹, S. Liu¹, Z. Zhang¹, B. Pan¹, W. Kang¹, Z. Wang¹, Z. Hou² and W. Zhao¹ *1. Beihang University, Beijing, China; 2. South China Normal University, Guangzhou, China*
[View Digest Text](#)
- COA-13. Nucleation, stabilization, annihilation, and transformation of topological spin textures for reservoir computing.** X. Liu¹ *1. Department of Electrical and Computer Engineering, Shinshu University, Nagano, Japan*
[View Digest Text](#)
- COA-14. Experimental Demonstration of a Skyrmion-Enhanced Straintronic Physical Reservoir Computing System.** N. Lei¹ and Y. Sun¹ *1. Beihang University, Beijing, China*
[View Digest Text](#)

ORAL SESSIONS

Session COB

SKYRMION MATERIALS AND ENGINEERING

Shawn Pollard, Chair

The University of Memphis, Memphis, TN, United States

- COB-01. Toggle-like Current-Induced Bloch Point Dynamics of 3D Skyrmion Strings in a Room Temperature Nanowire.** M. Birch¹, D. Cortés-Ortuño², K. Litzius¹, S. Wintz¹, F. Schulz¹, M. Weigand³, A. Stefancic⁴, D. Mayoh⁴, G. Balakrishnan⁴, P. Hatton⁵ and G. Schütz¹ *1. Modern Magnetic Materials, Max Planck Institute for Intelligent Systems, Stuttgart, Germany; 2. Department of Earth Sciences, Utrecht University, Utrecht, Netherlands; 3. Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Berlin, Germany; 4. Department of Physics, University of Warwick, Coventry, United Kingdom; 5. Department of Physics, Durham University, Durham, United Kingdom*
[View Digest Text](#)

- COB-02. A weakly pinned skyrmion liquid in a magnetic heterostructure.** *R. Mansell*¹, *Y. Zhou*¹, *K. Kohvakka*¹, *S. Ying*², *K.R. Elder*³, *E. Granato*⁴ and *T. Ala-Nissila*^{1,5}
1. Department of Applied Physics, Aalto University, Espoo, Finland; 2. Department of Physics, Brown University, Providence, RI, United States; 3. Department of Physics, Oakland University, Rochester, MI, United States; 4. Laboratório Associado de Sensores e Materiais, Instituto Nacional de Pesquisas Espaciais, São José dos Campos, Brazil; 5. Interdisciplinary Centre for Mathematical Modelling and Department of Mathematical Sciences, Loughborough University, Loughborough, United Kingdom
[View Digest Text](#)
- COB-03. Observation of antiferromagnetic merons and antimerons in synthetic antiferromagnets.** *M. Bhukta*², *T. Dohi*^{2,1}, *V. Bharadwaj*², *R. Zarzuela*², *M. Syskaki*^{2,3}, *J. Sinova*², *R. Frömter*² and *M. Kläui*²
1. Laboratory for Nanoelectronics and Spintronics, Research Institute of Electrical Communication, RIEC, Tohoku University, Sendai 980-8577, Japan, Japan; 2. Institute of Physics, Johannes Gutenberg University, Mainz, Germany; 3. Singulus Technologies AG, Kahl am Main, Germany
[View Digest Text](#)
- COB-04. Chiral spintronics. (Invited)** *S. Parkin*¹
1. Max Planck Institute for Microstructure Physics, Halle, Germany
[View Digest Text](#)
- COB-05. Correlation between Hall effect and skyrmion density in CoFeB based skyrmion multilayers.** *Y. Kumar*¹, *H.C. Chauhan*¹, *N. Reyren*², *S. Krishna*², *T. Srivastava*², *V. Cros*² and *P. Das*¹
1. Physics, Indian Institute of Technology, New Delhi, India; 2. Unite Mixte de Physique, CNRS, Thales, Palaiseau, France
[View Digest Text](#)
- COB-06. Double heterostructure introduction in Pt/Ni/Co system for skyrmion with small size and fast transport.** *L. Zhang*¹, *K. Tokunaga*¹, *Y. Kurokawa*¹, *R. Satone*¹, *T. Tamaoka*², *Y. Tomita*², *Y. Murakami*^{2,3} and *H. Yuasa*¹
1. Graduate School of Information Science and Electrical Engineering, Kyushu University, Fukuoka, Japan; 2. The Ultramicroscopy Research Center, Kyushu University, Fukuoka, Japan; 3. Department of Applied Quantum Physics and Nuclear Engineering, Kyushu University, Fukuoka, Jamaica
[View Digest Text](#)
- COB-07. Observation of Liquid-Like Skyrmion Phase in FeGe.** *M. Littlehales*^{1,2}, *S.H. Moody*¹, *B. Brereton*¹, *G. Balakrishnan*³, *H. Popescu*⁴, *N. Jaouen*⁴ and *P. Hatton*¹
1. Department of Physics, Durham University, Durham, United Kingdom; 2. ISIS Neutron and Muon Source, Oxford, United Kingdom; 3. Department of Physics, University of Warwick, Coventry, United Kingdom; 4. SEXTANTS, Synchrotron SOLEIL, Saint-Aubin, France
[View Digest Text](#)

- COB-08. Demonstration of a Thickness-Step Skyrmion Injector in FeGe.** M. Wilson^{1,2}, M. Littlehales^{2,3}, S.H. Moody², L. Turnbull², B. Huddart², B. Brereton², G. Balakrishnan⁴, P. Steadman⁵, R. Fan⁵ and P. Hatton² *1. Department of Physics and Physical Oceanography, Memorial University of Newfoundland, St. John's, NL, Canada; 2. Department of Physics, Durham University, Durham, United Kingdom; 3. ISIS Neutron and Muon Source, Oxford, United Kingdom; 4. Department of Physics, University of Warwick, Coventry, United Kingdom; 5. Diamond Light Source Ltd, Oxford, United Kingdom*
[View Digest Text](#)
- COB-09. Topological Transformation of Magnetic (Anti)Skyrmions via Thermal Current.** F.S. Yasin¹, J. Masell^{1,2}, K. Karube¹, D. Shindo¹, Y. Taguchi¹, Y. Tokura^{1,3} and X. Yu¹ *1. Center for Emergent Matter Science (CEMS), RIKEN, Wako, Japan; 2. Institute of Theoretical Solid State Physics, Karlsruhe Institute of Technology, Karlsruhe, Germany; 3. Department of Applied Physics, The University of Tokyo, Tokyo, Japan*
[View Digest Text](#)
- COB-10. Coexistence of distinct spin textures beyond skyrmions.** B. Göbel¹, J. Jena², I. Mertig¹ and S. Parkin² *1. Martin-Luther-University Halle-Wittenberg, Halle, Germany; 2. Max Planck Institute of Microstructure Physics, Halle, Germany*
[View Digest Text](#)
- COB-11. Large Dzyaloshinskii-Moriya interaction and room-temperature nanoscale skyrmions in CoFeB/MgO heterostructures.** R. Chen¹, X. Wang¹, H. Cheng¹, K. Lee², M. Kläui², H. Yang³, S. Peng¹, X. Zhang¹ and W. Zhao¹ *1. Beihang University, Beijing, China; 2. Johannes Gutenberg University Mainz, Mainz, Germany; 3. Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences, Ningbo, China*
[View Digest Text](#)
- COB-12. Suppression of skyrmion Hall effect via standing surface acoustic waves in hybrid ferroelectric/ferromagnetic heterostructures.** C. Chen¹, D. Wei² and N. Lei¹ *1. Beihang University, Beijing, China; 2. Institute of Semiconductors Chinese Academy of Sciences, Beijing, China*
[View Digest Text](#)
- COB-13. Stack engineering of antiferromagnetic skyrmion dynamics from bi-layer skyrmions to skyrmion tubes.** T. Dohi^{1,2}, M. Bhukta², F. Kammerbauer², M. Syskaki^{1,3}, K. Raab², M. Weißenhofer⁴, S. Wintz⁵, R. Frömter², G. Jakob², U. Nowak⁴ and M. Kläui² *1. Research Institute of Electrical Communication, Tohoku University, Sendai, Japan; 2. Institut für Physik, Johannes Gutenberg-Universität Mainz, Mainz, Germany; 3. Singulus Technologies AG, Hanauer, Germany; 4. Fachbereich Physik, Universität Konstanz, Konstanz, Germany; 5. Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Berlin, Germany*
[View Digest Text](#)
- COB-14. Withdrawn**
- COB-15. Withdrawn**

Session COC
SPINS IN 2D MATERIALS

Safeer Chenattukuzhiyil, Chair
 University of Oxford, Oxford, United Kingdom

- COC-01. Single-Atomic-Layer Stanene on Ferromagnetism Co Nanoislands with Nontrivial Band Topology.** *C. Chen*¹, Y. Chao², Y. Lin¹, Y. Zhuang¹, Y. Lai³, S. Huang¹, A.H. McDonald⁴, C. Shih⁴, B. Wang³, J. Su² and P. Hsu¹
 1. Department of Physics, National Tsing Hua University, Hsinchu, Taiwan; 2. Department of Electrophysics, National Yang Ming Chiao Tung University, Hsinchu, Taiwan; 3. Department of Physics, National Changhua University of Education, Changhua, Taiwan; 4. Department of Physics, The University of Texas at Austin, Austin, TX, United States
[View Digest Text](#)
- COC-02. Yu-Shiba-Rusinov States of Fe Atoms on Ni Kagome Lattice on Pb(111).** *Y. Lin*¹, N. Kumar¹, T. Lin¹, J. Xiao¹, C. He¹ and P. Hsu¹ 1. Department of Physics, National Tsing Hua University, Hsinchu, Taiwan
[View Digest Text](#)
- COC-03. Ferromagnetism modulation by ultralow current in a two-dimensional polycrystalline molybdenum disulfide atomic layered structure.** *I. Muneta*¹, T. Shirokura², H.N. Pham², K. Kakushima¹, K. Tsutsui¹ and H. Wakabayashi¹ 1. Tokyo Institute of Technology, Yokohama, Japan; 2. Tokyo Institute of Technology, Tokyo, Japan
[View Digest Text](#)
- COC-04. Spin Logic and Emergent Spin Phenomena in 2D Materials Heterostructures. (Invited)** *S.P. Dash*¹
 1. Chalmers University of Technology, Gothenburg, Sweden
[View Digest Text](#)
- COC-05. Graphene-Supported Atom-Sized Magnets for Data Storage: What Can We Learn from First-Principles Calculations?** *J. Navratil*^{1,2}, R. Langer^{1,2}, M. Otyepka^{1,3}, T. Susi⁴ and *P.S. Blonski*¹ 1. Regional Centre of Advanced Technologies and Materials, Czech Advanced Technology and Research Institute (CATRIN), Palacký University Olomouc, Olomouc, Czechia; 2. Department of Physical Chemistry, Faculty of Science, Palacký University Olomouc, Olomouc, Czechia; 3. IT4Innovations, Technical University of Ostrava, Ostrava, Czechia; 4. Faculty of Physics, University of Vienna, Vienna, Austria
[View Digest Text](#)
- COC-06. Anomalous Zeeman shift of defect-bound states in epitaxial FeSn films.** *L. Li*¹ and H. Zhang¹ 1. Physics and Astronomy, West Virginia University, Morgantown, WV, United States
[View Digest Text](#)

COC-07. Spin transport in CrXY monolayers: multiscale computational study. L. Vojáček¹, J.H. Garcia², J.E. Medina Dueñas², F. Ibrahim¹, S. Roche^{2,3}, J. Li⁴ and M. Chshiev^{1,5}
1. CEA-SPINTEC, Grenoble, France; 2. ICN2, Barcelona, Spain; 3. ICREA, Barcelona, Spain; 4. Leti, Grenoble, France; 5. Institut Universitaire de France, Paris, France
[View Digest Text](#)

COC-08. Role of Er Doping in Observed Superconductivity of Non-Centrosymmetric YPdBi Half-Heusler Non-Trivial Thin Films. S. Srivastava¹, B. Das², V. Bhardwaj³, A. Alam² and R. Chatterjee¹
1. Physics, Indian Institute of Technology Delhi, New Delhi, India; 2. Physics, Indian Institute of Technology Bombay, Mumbai, India; 3. Department of Condensed Matter Physics, Weizmann Institute of Science, Rehovot, Israel
[View Digest Text](#)

COC-09. Magnetization and Spin Dynamics in Two-Dimensional Magnets. L. Alahmed¹, B. Nepal², J. Macy³, B. Casas³, A. Sapkota², A. Mazza⁴, M. Brahlek⁴, J. Wen⁵, W. Jin¹, S. Zhang⁶, C. Mewes², L. Zhang⁷, Y. Mokrousov^{7,12}, W. Zhang¹⁰, Y. Lee^{5,8}, L. Balicas³, T. Mewes², X. Zhang¹¹ and P. Li⁹
1. Auburn University, Auburn, AL, United States; 2. University of Alabama, Tuscaloosa, AL, United States; 3. Florida State University, Tallahassee, FL, United States; 4. Oak Ridge National Laboratory, Oak Ridge, TN, United States; 5. SLAC National Accelerator Laboratory, Menlo Park, CA, United States; 6. Case Western Reserve University, Cleveland, OH, United States; 7. Forschungszentrum Jülich and JARA, Jülich, Germany; 8. Stanford University, Palo Alto, CA, United States; 9. University of Science and Technology of China, Hefei, China; 10. University of North Carolina, Chapel Hill, NC, United States; 11. Southern University of Science and Technology, Shenzhen, China; 12. Johannes Gutenberg University Mainz, Mainz, Germany
[View Digest Text](#)

COC-10. Unconventional Anomalous Hall Effect in Cr₂Te₃ Thin Films. M. Bian^{1,2}, K. He³, S. Seddon⁴, P. Milde⁴, C. Huai¹, J. Zang⁵, R. Sabirianov⁶, J. Bird³, X. Cheng⁷, G. Miao⁸, L. Eng⁴, Y. Hou² and H. Zeng¹
1. Department of Physics, University at Buffalo, the State University of New York, Buffalo, NY, United States; 2. School of Materials Science and Engineering, Peking University, Beijing, China; 3. Department of Electrical Engineering, University at Buffalo, the State University of New York, Buffalo, NY, United States; 4. Institut für Angewandte Physik, Technische Universität Dresden, Dresden, Germany; 5. Department of Physics, University of New Hampshire, Durham, NH, United States; 6. Department of Physics, University of Nebraska-Omaha, Omaha, NE, United States; 7. Department of Physics, Bryn Mawr College, Bryn Mawr, PA, United States; 8. Department of Electrical Engineering, University of Waterloo, Waterloo, ON, Canada
[View Digest Text](#)

- COC-11. Proximity effects in molecular beam epitaxy grown van der Waals ferromagnet Cr_2Te_3 on two-dimensional layers.** *Q. Guillet*¹, *H. Boukari*², *L. Vojáček*¹, *D. Dosenovic*³, *H. Okuno*³, *F. Ibrahim*¹, *J. Li*⁴, *C. Vergnaud*¹, *A. Marty*¹, *F. Bonell*¹, *M. Chshiev*¹ and *M. Jamet*¹ *1. Univ. Grenoble Alpes, CEA, CNRS, IRIG-SPINTEC, Grenoble, France; 2. Univ. Grenoble Alpes, CNRS, Institut Neel, Grenoble, France; 3. Univ. Grenoble Alpes, CEA, CNRS, IRIG-MEM, Grenoble, France; 4. CEA, LETI, Univ. Grenoble Alpes, Grenoble, France*
[View Digest Text](#)

ORAL SESSIONS

Session COD SPINS IN GRAPHENE AND TOPOLOGICAL MATERIALS

Yi Wang, Chair

Dalian University of Technology, Dalian City, India

- COD-01. Disentangling magnetic proximity effects in magnetic insulator-topological insulator thin film heterostructures.** *(Invited) L. Riddiford*^{1,2}, *A.J. Grutter*³, *T. Pillsbury*⁴, *M. Stanley*⁴, *D. Reifsnnyder Hickey*⁵, *P. Li*², *N. Alem*⁵, *N. Samarth*⁴ and *Y. Suzuki*^{1,2} *1. Department of Applied Physics, Stanford University, Stanford, CA, United States; 2. Geballe Lab for Advanced Materials, Stanford University, Stanford, CA, United States; 3. National Institute of Standards and Technology, Gaithersburg, MD, United States; 4. Department of Physics, The Pennsylvania State University, State College, PA, United States; 5. Department of Materials Science, The Pennsylvania State University, State College, PA, United States*
[View Digest Text](#)
- COD-02. Spin-Sensitive Epitaxial In_2Se_3 Tunnel Barrier in $\text{In}_2\text{Se}_3/\text{Bi}_2\text{Se}_3$ Topological Van der Waals Heterostructure.** *C. Li*¹, *J. Moon*¹, *O.M. van't Erve*¹, *D. Wickramaratne*¹, *E. Cobas*¹, *M.D. Johannes*¹ and *B.T. Jonker*¹ *1. Naval Research Laboratory, Washington, DC, United States*
[View Digest Text](#)
- COD-03. Magnetic memory driven by topological insulators.** *H. Wu*¹, *A. Chen*², *X. Zhang*¹, *H.N. Pham*³, *X. Zhang*² and *K. Wang*⁴ *1. Songshan Lake Materials Laboratory, Dongguan, China; 2. King Abdullah University of Science and Technology, Thuwal, Saudi Arabia; 3. Tokyo Institute of Technology, Tokyo, Japan; 4. University of California, Los Angeles, Los Angeles, CA, United States*
[View Digest Text](#)
- COD-04. BiSb topological insulator/MnGa ferromagnet systems for spin-to-charge interconversion.** *D. She*¹, *N. Figueiredo-Prestes*¹, *L. Baringthon*¹, *L. Largeau*², *M. Morassi*², *H. Jaffrès*¹, *P. Lefvre*³, *N. Reyren*¹, *A. Lemaitre*² and *J. George*¹ *1. CNRS/Thales, Palaiseau, France; 2. C2N, Palaiseau, France; 3. Synchrotron SOLEIL, Saint-Aubin, France*
[View Digest Text](#)

- COD-05. Large and isotropic spin-orbit torques and spin Hall magnetoresistance from the twin-free topological insulator $\text{Bi}_{0.9}\text{Sb}_{0.1}$.** F. Binda¹, S. Fedel¹, S.F. Alvarado¹, P. Noël¹ and P. Gambardella¹ *1. Department of Materials, ETH Zurich, Zürich, Switzerland*
[View Digest Text](#)
- COD-06. Intrinsic Magnetic Topological Insulators: Discovery and Current Status. (Invited)** M.M. Otrokov^{1,2} *1. Centro de Física de Materiales (CFM-MPC), Centro Mixto CSIC-UPV/EHU, Donostia-San Sebastián, Spain; 2. Ikerbasque, Basque Foundation for Science, Bilbao, Spain*
[View Digest Text](#)
- COD-07. Large spin conversion in the Fe/graphene/Pt interface.** A. Anadón¹, I. Arnay², R. Guerrero³, A. Gudín², S. Petit-Watelot¹, J. Camarero^{2,4}, P. Perna² and J. Rojas-Sanchez¹ *1. Institut Jean Lamour, Nancy, France; 2. IMDEA Nanociencia, Madrid, Spain; 3. Universidad de Castilla la Mancha, Toledo, Spain; 4. Universidad Autónoma de Madrid, Madrid, Spain*
[View Digest Text](#)
- COD-08. Helicity-Dependent Terahertz Emission from a Weyl Semimetal Mn_3Sn .** D.F. Hamara¹, G. Lange¹, A. Markou², R. Slager¹ and C. Ciccarelli¹ *1. Cavendish Laboratory, University of Cambridge, Cambridge, United Kingdom; 2. Max Planck Institute for Chemical Physics of Solids, Dresden, Germany*
[View Digest Text](#)
- COD-09. Spintronic THz emission in 2D- PtSe_2 .** K. Abdukayumov¹, C. Vergnaud¹, A. Marty¹, F. Bonell¹, I.G. de Moraes¹, M. Chshiev¹, F. Ibrahim¹, H. Okuno², D. Dosenovic², A. Ouerghi³, M. Micica⁴, S. Dhillon⁴, J. George⁵, H. Jaffrès⁵ and M. Jamet¹ *1. CEA-SPINTEC, Grenoble, France; 2. IRIG- MEM, Grenoble, France; 3. C2N, Université Paris Saclay, Paris, France; 4. Ecole Normale Supérieure Paris, Paris, France; 5. Unité Mixte de Physique, CNRS, Thales, Palaiseau, France*
[View Digest Text](#)
- COD-10. Antiferromagnetic Dirac nodal line/point and topological insulator states tuned by magnetization orientation in monolayer MnB .** L. Huang¹ and L. Wang^{1,2} *1. Tianjin Key Laboratory of Low Dimensional Materials Physics and Preparation Technology, Tianjin University, Tianjin, China; 2. Tianjin Demonstration Center for Experimental Physics Education, School of Science, Tianjin University, Tianjin, China*
[View Digest Text](#)

Session COE
SPINS IN VAN DER WAALS MATERIALS

Maciej Dabrowski, Chair
 University of Exeter, Exeter, United Kingdom

- COE-01. Gate-tunable anomalous Hall effect in a 3D topological insulator/2D magnet van der Waals heterostructure.** *(Invited)* R. Jain¹, V. Gupta¹, Y. Ren³, X.S. Zhang¹, H.F. Alnaser², A. Vashist², V.V. Deshpande², D. Xiao³, T.D. Sparks² and D.C. Ralph¹ 1. Cornell University, Ithaca, NY, United States; 2. University of Utah, Salt Lake, UT, United States; 3. University of Washington, Seattle, WA, United States
[View Digest Text](#)
- COE-02. Unconventional spin-to-charge interconversion in low-symmetry van der Waals materials.** S. Chenattukuzhiyil^{5,1}, N. Ontoso¹, J. Ingla-Aynes¹, F. Herling¹, V. Pham¹, I. Groen¹, H. Yang¹, Z. Chi¹, I. Robredo², M. Vergniory^{2,4}, F. de Juan^{2,4}, A. Chuvilin^{1,4}, M. Gobbi¹, R. Calvo^{3,1}, L. Hueso^{1,4} and F. Casanova^{1,4} 1. CIC nanoGUNE, San Sebastian, Spain; 2. Donostia International Physics Center (DIPC), San Sebastian, Spain; 3. Universidad de Alicante, Alicante, Spain; 4. Ikerbasque, Basque Foundation for Science, Basque Country, Spain; 5. University of Oxford, Oxford, United Kingdom
[View Digest Text](#)
- COE-03. Switchable unconventional charge-spin interconversion in van der Waals heterostructures.** Z. Chi¹, S. Lee², H. Yang¹, N. Ontoso¹, E. Dolan¹, C. Safeer¹, J. Ingla-Aynes¹, F. Herling¹, B. Martin-Garcia^{1,3}, M. Gobbi^{1,3}, T. Low^{2,4}, L. Hueso^{1,3} and F. Casanova^{1,3} 1. CIC nanoGUNE BRTA, Donostia-San Sebastian, Spain; 2. Department of Electrical and Computer Engineering, University of Minnesota, Minneapolis, MN, United States; 3. Ikerbasque, Basque Foundation for Science, Bilbao, Spain; 4. Department of Physics, University of Minnesota, Minneapolis, MN, United States
[View Digest Text](#)
- COE-04. Efficient spin-orbit torque generation in van der Waals heterostructures.** T. Guillet¹, R. Galceran², J. Sierra¹, M. Jamet³, F. Bonell³ and S.O. Valenzuela¹ 1. Catalan Institute of Nanoscience and Nanotechnology, Barcelona, Spain; 2. University of Barcelona, Barcelona, Spain; 3. CEA-SPINTEC, Grenoble, France
[View Digest Text](#)
- COE-05. Thickness-dependent SOT effective fields and magnetization control in Topological insulator/2D-ferromagnet Bi₂Te₃/Cr_{1+δ}Te₂ Van der Waals heterostructures with PMA.** N. Figueiredo-Prestes¹, A. Lintzeris^{2,3}, P. Tsipas², N. Reyren¹, H. Jaffrès¹, A. Dimoulas² and J. George¹ 1. Unité Mixte de Physique CNRS, Thales, Université Paris-Saclay, Palaiseau, France; 2. National Center for Scientific Research Demokritos, Athens, Greece; 3. Physics Department, National Kapodistrian University of Athens, Athens, Greece
[View Digest Text](#)

- COE-06. Microscopic magnetic properties of two-dimensional magnetic Fe_xGeTe_2 films on graphene. (Invited)**
A.I. Figueroa^{2,1}, *H. Lv*³, *J. Herfort*³, *D. Czubak*³, *E. Zallo*^{3,4}, *C. Guillemond*⁵, *M. Valvidares*⁵, *J. Rubio-Zuazo*^{6,7}, *J. López-Sánchez*^{6,7}, *S.O. Valenzuela*^{2,8}, *M. Hanke*³, *M. Ramsteiner*³ and *J. J. Lopes*³ *1. Condensed Matter Physics, University of Barcelona, Barcelona, Spain; 2. Catalan Institute of Nanoscience and Nanotechnology, Bellaterra, Spain; 3. Paul-Drude-Institute, Berlin, Germany; 4. Physik Department, Walter Schottky Institut, Technische Universität München, Garching, Germany; 5. ALBA Synchrotron Light Source, Barcelona, Spain; 6. Spanish CRG BM25-SpLine, ESRF—The European Synchrotron, Grenoble, France; 7. Instituto de Ciencia de Materiales de Madrid (ICMM), CSIC, Madrid, Spain; 8. Institució Catalana de Recerca i Estudis Avançats (ICREA), Barcelona, Spain*
[View Digest Text](#)
- COE-07. Enhancement of spin-flop induced magnetic hysteresis in van der Waals magnet $(\text{Fe}_{1-x}\text{Co}_x)_5\text{GeTe}_2$.** *T. Ohta*¹, *K. Kurokawa*¹, *N. Jiang*^{1,2}, *K. Yamagami*³, *Y. Okada*³ and *Y. Niimi*^{1,2} *1. Department of Physics, Osaka University, Toyonaka, Japan; 2. Center for Spintronics Research Network, Osaka University, Toyonaka, Japan; 3. Okinawa Institute of Science and Technology, Onna-son, Japan*
[View Digest Text](#)
- COE-08. Magnetism of epitaxial $(\text{Fe},\text{Co})_5\text{GeTe}_2$ van der Waals magnets in the monolayer limit.** *J. Courtin*¹, *R. Sant*², *P. Vasconcelos*², *F. Choueikani*³, *F. Ibrahim*¹, *A. Marty*¹, *D. Dosenovic*⁴, *H. Okuno*⁴, *V. Polewczyk*¹, *I.G. de Moraes*¹, *C. Vergnaud*¹, *D. Jalabert*⁴, *M. Chshiev*¹, *M. Jamet*¹ and *F. Bonell*¹ *1. SPINTEC, Grenoble, France; 2. ESRF, Grenoble, France; 3. SOLEIL Synchrotron, Gif-sur-Yvette, France; 4. CEA-IRIG-MEM, Grenoble, France*
[View Digest Text](#)
- COE-09. Torques and Topological Spin Structures in Conducting 2D Materials.** *M. Schmitt*¹, *F. Martin*¹, *K. Lee*^{1,2}, *A. Liedtke*¹, *A. Shahee*¹, *A. Puthirath Balan*¹, *H. Simensen*³, *T. Scholz*⁴, *T. Saunderson*¹, *R. Borkowski*⁷, *D. Go*⁵, *M. Gradhand*^{1,6}, *Y. Mokrousov*^{1,5}, *T. Denneulin*⁷, *A. Kovács*⁷, *P. Rübmann*^{5,8}, *A. Tavabi*⁷, *P. Mavropoulos*⁹, *B. Lotsch*⁴, *S. Blügel*⁵, *A. Brataas*³ and *M. Kläui*^{1,3} *1. Institute of Physics, Johannes Gutenberg University, Mainz, Germany; 2. Division of Display and Semiconductor Physics, Korea University, Sejong, The Democratic People's Republic of Korea; 3. Centre for Quantum Spintronics, Department of Physics, Norwegian University of Science and Technology, Trondheim, Norway; 4. Max Planck Institute for solid state research, Stuttgart, Germany; 5. Peter Grünberg Institute and Institute for Advanced Simulation, Forschungszentrum Julich, Julich, Germany; 6. H. H. Wills Physics Laboratory, University of Bristol, Bristol, United Kingdom; 7. Ernst Ruska-Centre for Microscopy and Spectroscopy with Electrons and Peter Grünberg Institute, Forschungszentrum Julich, Julich, Germany; 8. Institute of Theoretical Physics and Astrophysics, University of Würzburg, Würzburg, Germany; 9. Department of Physics, National and Kapodistrian University of Athens, Athens, Greece*
[View Digest Text](#)

- COE-10. Seeding and Emergence of Composite Skyrmions in van der Waals Magnet Fe_3GeTe_2 .** L. Powalla¹, M. Birch², K. Litzius², S. Wintz², F.S. Yasin³, L. Turnbull⁴, F. Schulz², D. Mayoh⁵, G. Balakrishnan⁵, M. Weigand⁶, X. Yu³, K. Kern^{1,7}, G. Schütz² and M. Burghard¹ *1. Nanoscale Science, Max Planck Institute for Solid State Research, Stuttgart, Germany; 2. Max Planck Institute for Intelligent Systems, Stuttgart, Germany; 3. RIKEN Center For Emergent Matter Science, Wako, Japan; 4. Durham University, Durham, United Kingdom; 5. University of Warwick, Coventry, United Kingdom; 6. Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Berlin, Germany; 7. Ecole Polytechnique Federale de Lausanne, Lausanne, Switzerland*
[View Digest Text](#)

POSTER SESSION

Session CPA
SKYRMION MATERIALS AND DEVICES
(Poster Session)

Anjan Soumyanarayanan, Chair
A*STAR Institute of Materials Research and Engineering,
Singapore, Singapore

- CPA-01. Skyrmion diffusion and its voltage gating.** S. Miki^{1,2}, K. Hashimoto^{1,2}, R. Ishikawa³, M. Goto^{1,2}, Y. Shiota^{4,5}, E. Tamura^{1,2}, H. Nomura^{1,2} and Y. Suzuki^{1,2} *1. Graduate School of Engineering Science, Osaka University, Toyonaka, Japan; 2. OTRI-Osaka, Osaka University, Suita, Japan; 3. ULVAC, Inc., Suita, Japan; 4. Institute for Chemical Research, Kyoto University, Uji, Japan; 5. CSRN-Kyoto, Kyoto University, Uji, Japan*
[View Digest Text](#)
- CPA-02. Topology-Dependent Brownian Gyromotion of a Single Skyrmion.** L. Zhao^{1,3}, Z. Wang^{1,3}, X. Zhang², X. Liang², Y. Zhou² and W. Jiang^{1,3} *1. Department of Physics, Tsinghua University, Beijing, China; 2. The Chinese University of Hong Kong (shenzhen), Shenzhen, China; 3. Frontier Science Center for Quantum Information, Tsinghua University, Beijing, China*
[View Digest Text](#)
- CPA-03. Current-induced skyrmion dynamics in 2-dimensional van der Waals ferromagnet at room temperature.** Y. Ji¹, S. Yang², H. Ahn³, T. Ju², M. Im⁴, H. Han⁴, C. Lee³, C. Hwang² and K. Kim¹ *1. Department of Physics, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, The Republic of Korea; 2. Quantum Spin Team, Korea Research Institute of Standards and Science, Daejeon, The Republic of Korea; 3. School of Mechanical Engineering, Sungkyunkwan University, Suwon, The Republic of Korea; 4. Center for X-ray Optics, Lawrence Berkeley National Laboratory, Berkeley, CA, United States*
[View Digest Text](#)

- CPA-04. Realization of zero-field skyrmions in a magnetic tunnel junction.** B. He^{1,2}, Y. Hu³, J. Zhang³, Y. Peng³, X. Han^{1,2} and G. Yu^{1,2} *1. Beijing National Laboratory for Condensed Matter Physics, Institute of Physics, University of Chinese Academy of Sciences, Chinese Academy of Sciences, Beijing, China; 2. Center of Materials Science and Optoelectronics Engineering, University of Chinese Academy of Sciences, Beijing, China; 3. Key Laboratory for Magnetism and Magnetic Materials of Ministry of Education, Lanzhou University, Lanzhou, China*
[View Digest Text](#)
- CPA-05. Precise Transport of Skyrmions by Surface Acoustic Waves.** J. Shuai¹, L. Lopez-Diaz², J.E. Cunningham³ and T.A. Moore¹ *1. School of Physics and Astronomy, University of Leeds, Leeds, United Kingdom; 2. Department of Applied Physics, Universidad de Salamanca, Salamanca, Spain; 3. School of Electronic and Electrical Engineering, University of Leeds, Leeds, United Kingdom*
[View Digest Text](#)
- CPA-06. Withdrawn**
- CPA-07. Manipulating density of magnetic skyrmions via multilayer repetition and thermal annealing.** X. Wang¹, A. Cao¹, S. Li¹, J. Tang², A. Du¹, H. Cheng¹, Y. Sun¹, H. Du², X. Zhang¹ and W. Zhao¹ *1. Beihang University, Beijing, China; 2. High Magnetic Field Laboratory of Chinese Academy of Sciences, Hefei, China*
[View Digest Text](#)
- CPA-08. Logic operations of magnetic-skyrmion chirality via a branched nanowire.** Y. Nakatani¹, K. Yamada² and A. Hirohata³ *1. Graduate School of Informatics and Engineering, University of Electro-Communications, Chofu, Japan; 2. Faculty of Engineering, Gifu University, Gifu, Japan; 3. Department of Electronic Engineering, University of York, York, United Kingdom*
[View Digest Text](#)
- CPA-09. Withdrawn**
- CPA-10. Generation and annihilation of skyrmions and antiskyrmions in magnetic heterostructures.** S. Koraltan¹, F. Bruckner¹, C. Abert¹ and D. Suess¹ *1. Faculty of Physics, University of Vienna, Vienna, Austria*
[View Digest Text](#)
- CPA-11. Mechanisms and Control of Inter-Skyrmion Attractions.** M. Kameda^{1,2}, K. Kobayashi³ and Y. Kawaguchi² *1. Institute for Materials Research, Tohoku University, Sendai, Japan; 2. Department of Applied Physics, Nagoya University, Nagoya, Japan; 3. Department of Physics, Kyushu University, Fukuoka, Japan*
[View Digest Text](#)
- CPA-12. Numerical study on skyrmion transport with small size and high speed.** R. Satone¹, Y. Kurokawa¹ and H. Yuasa¹ *1. Information Science and Electrical Engineering, Kyushu University, Motoooka Nishi-ku, Japan*
[View Digest Text](#)

- CPA-13. Thermal Skyrmion Dynamics in Thin Films Revealed by Kerr Microscopy.** R. Gruber¹, M.A. Brems¹, J. Rothörl¹, T. Sparmann¹, J. Zázvorka², M. Schmitt¹, I. Kononenko^{1,3}, F. Kammerbauer¹, M. Syskaki^{1,4}, D. Rodrigues⁵, P. Virnau¹ and M. Kläui¹ *1. Institute of Physics, Johannes Gutenberg University, Mainz, Germany; 2. Faculty of Mathematics and Physics, Charles University in Prague, Prague, Czechia; 3. Institute of Applied Physics, National Academy of Sciences of Ukraine, Sumy, Ukraine; 4. Singulus Technologies AG, Kahl am Main, Germany; 5. Dipartimento di Ingegneria Elettrica e dell'Informazione, Politecnico di Bari, Bari, Italy*
[View Digest Text](#)
- CPA-14. Towards Coding Information by 3D Chiral Spin Textures.** H.J. Hug¹, A. Mandru¹, O. Yildirim¹, T. Dutta¹, Y. Feng¹, R. Peremadathil-Pradeep¹, R. Tomasello², G. Carlotti³, S. Tacchi⁴, D. Suess⁵, A. Giordano⁶ and G. Finocchio⁶ *1. Magnetic and Functional Thin Films, Empa, Duebendorf, Switzerland; 2. Politecnico di Bari, Bari, Italy; 3. University of Perugia, Perugia, Italy; 4. IOM - Istituto Officina dei Materiali, Perugia, Italy; 5. University of Vienna, Vienna, Austria; 6. University of Messina, Messina, Italy*
[View Digest Text](#)
- CPA-15. Voltage-Controlled Skyrmionic Interconnect with Multiple Magnetic Information Carriers.** R. Chen¹, W. Griggs¹, Y. Li¹, V. Pavlidis¹ and C. Moutafis¹ *1. Department of Computer Science, University of Manchester, Manchester, United Kingdom*
[View Digest Text](#)
- CPA-16. XMCD study on skyrmion-host chiral ferromagnetic Fe_{2-x}Pd_xMo₃N thin films.** B. Qiang^{1,2}, T. Fukasawa¹, T. Hajiri¹, H. Asano^{1,3} and T. Ito⁴ *1. Department of Materials Physics, Nagoya University, Nagoya, Japan; 2. Department of Materials Design Engineering, Nagoya University, Nagoya, Japan; 3. Research Department, Nagoya Industrial Science Research Institute, Nagoya, Japan; 4. Synchrotron Radiation Research Center, Nagoya University, Nagoya, Japan*
[View Digest Text](#)
- CPA-17. Gate-controlled skyrmion-based majority logic in a nanomagnetic device.** B. Paikaray¹, M. Kuchibhotla², A. Haldar² and C. Murapaka¹ *1. Department of Materials Science and Metallurgical Engineering, Indian Institute of Technology Hyderabad, Sangareddy, India; 2. Physics, Indian Institute of Technology Hyderabad, Sangareddy, India*
[View Digest Text](#)
- CPA-18. Withdrawn**
- CPA-19. The correlation between skyrmion size, shape and device geometry.** W.Z. Al Saidi¹ *1. Physics, Sultan Qaboos University, Muscat, Oman*
[View Digest Text](#)
- CPA-20. Overlapping-skyrmions based racetrack memory.** T. Nishitani¹, S. Honda¹ and H. Itoh¹ *1. Department of Pure and Applied Physics, Kansai University, Suita, Japan*
[View Digest Text](#)

Session CPB
SPINS IN 2D AND TOPOLOGY MATERIALS
(Poster Session)

Amir Capua, Co-Chair

The Hebrew University of Jerusalem, Jerusalem, Israel

Kyunsup Lee, Co-Chair

Pukyong National University, Busan, The Republic of Korea

CPB-01. Ferromagnetism in two-dimensional PtSe₂. H. Xu¹, H. Wu¹, M. Wang² and C. Chang² *1. School of Physics, Beijing Institute of Technology, Beijing, China; 2. Department of Physics, National Taiwan University, Taipei, Taiwan*
[View Digest Text](#)

CPB-02. Second-order spin and charge responses in LaO/STO heterostructure. Z. Siu¹, A. Kundu^{1,2} and M.B. Jalil¹
1. National University of Singapore, Singapore; 2. Ariel University, Ariel, Israel
[View Digest Text](#)

CPB-03. Breaking through the Mermin-Wagner limit in 2D van der Waals magnets. S. Jenkins^{1,2}, L. Rózsa³, U. Atxitia⁴, R.F. Evans¹, K.S. Novoselov⁵ and E. Santos⁶ *1. Physics, University of York, York, United Kingdom; 2. Physics, Johannes Gutenberg University, Mainz, Germany; 3. Physics, University of Konstanz, Konstanz, Germany; 4. Physics, Freie Universität Berlin, Berlin, Germany; 5. Physics, National University of Singapore, Singapore; 6. Physics, University of Edinburgh, Edinburgh, United Kingdom*
[View Digest Text](#)

CPB-04. Growth and terahertz conductivity of epitaxial Mn₃Sn thin films. D. Gao¹, T. Zhang¹, T. Yin¹, F. Tang¹, Z. Bin¹, Y. Yang¹, W. Yang¹, J. Qin¹, S. Liu¹, L. Deng¹, M. Hu¹ and L. Bi¹ *1. University of Electronic Science and Technology of China, Chengdu, China*
[View Digest Text](#)

CPB-05. Gate-Controlled Charge Rectification in Elemental Tellurium. D. Hirobe¹, Y. Nabei^{2,3} and H. Yamamoto^{2,3}
1. Shizuoka University, Shizuoka, Japan; 2. Institute for Molecular Science, Okazaki, Japan; 3. The Graduate University for Advanced Studies, Okazaki, Japan
[View Digest Text](#)

CPB-06. Two-Step Synthesis of Spin-Helix Layered Material SnS by Physical Vapor Deposition and Nitrogen Etching. K. Koyama¹, M. Aoyama¹, T. Odagawa¹, T. Miyazaki¹, C. Zhang², S. Karube¹ and M. Kohda^{1,3} *1. Graduate School of Engineering, Tohoku University, Sendai, Japan; 2. Frontier Research Institute for Interdisciplinary Sciences, Tohoku University, Sendai, Japan; 3. Quantum Materials and Applications Research Center, National Institutes for Quantum Science and Technology, Takasaki, Japan*
[View Digest Text](#)

- CPB-07. Tunneling magnetoresistance effects based on van der Waals room-temperature ferromagnet Fe_3GaTe_2 .** M. Zhu¹, X. Li¹, Y. Wang¹, F. Zheng¹, J. Dong¹, Y. Zhou¹, L. You¹ and J. Zhang¹ 1. *Huazhong University of Science & Technology, Wuhan, China*
[View Digest Text](#)
- CPB-08. Two-dimensional GdI_2/GeC van der Waals heterostructure: Bipolar magnetic semiconductor with high Curie temperature and large magnetic anisotropy energy.** X. Fan¹ and W. Mi¹ 1. *Department of Applied Physics, Tianjin University, Tianjin, China*
[View Digest Text](#)
- CPB-09. Unconventional Emergent Hall Effect Phenomena and its Modification in a van der Waals Ferromagnet Fe_3GeTe_2 .** R. Roy Chowdhury¹, C. Patra¹, S. Duttagupta^{2,3}, S. Fukami^{3,4} and R. Singh¹ 1. *Physics, Indian Institute of Science Education and Research Bhopal, Bhopal, India*; 2. *Saha Institute of Nuclear Physics, KOLKATA, India*; 3. *Center for Science and Innovation in Spintronics (CSIS), Tohoku University, 980-8577, Japan, Sendai, Japan*; 4. *Research Institute of Electrical Communication (RIEC), Tohoku University, SENDAI, Japan*
[View Digest Text](#)
- CPB-10. Dzyaloshinskii–Moriya Interaction in WS_2/Py Bilayers.** C. Wu¹, Y. Lin², L. Tsai¹, R. Jain¹, J. Liang³, Y. Lee² and S. Lee¹ 1. *Institute of Physics, Academia Sinica, Taipei, Taiwan*; 2. *Materials, National Tsing Hua University, Hsinchu, Taiwan*; 3. *Physics, Fu Jen Catholic University, New Taipei, Taiwan*
[View Digest Text](#)
- CPB-11. The Enhancement of Perpendicular Magnetic Anisotropy of $\text{Pt}/\text{Co}/\text{Pt}$ by inserting a few-layer MoS_2 .** C. Li¹, X. Xu¹, Z. Zhu¹, C. Dou¹, M. Li¹, K. Meng¹, Y. Wu¹, J. Chen¹ and Y. Jiang² 1. *University of Science and Technology Beijing, Beijing, China*; 2. *Tiangong University, Tianjin, China*
[View Digest Text](#)
- CPB-12. Influence of magnetic moments on spin-orbit torque efficiency from topological surface state in TI/FM interface.** H. Poh¹ and W. Lew¹ 1. *School of Physical and Mathematical Sciences, Nanyang Technological University, Singapore, Singapore*
[View Digest Text](#)
- CPB-13. Spin-charge interconversion in Topological Insulator Sb_2Te_3 .** S. Teresi¹, T. Frottier¹, M. Cosset-Cheneau¹, A. Kandazoglou¹, P. Sgarro¹, C. Grezes¹, N. Sebe¹, P. Noé², J. Patterson², F. Hippert³, L. Hutin², G. Prenat¹, A. Marty¹, J. Attané¹ and L. Vila¹ 1. *Université Grenoble Alpes / CEA / IRIG / SPINTEC, Grenoble, France*; 2. *Université Grenoble Alpes / CEA / LETI, Grenoble, France*; 3. *Université Grenoble Alpes / CNRS / Grenoble INP / LMGP, Grenoble, France*
[View Digest Text](#)

- CPB-14. **Effect of cracker cell temperature on MBE-grown Sb₂Te₃ topological insulator thin film.** *A. Yagmur¹, C.S. Knox¹, J. Burton¹, B.J. Hickey¹ and S. Sasaki¹* *1. School of Physics and Astronomy, University of Leeds, Leeds, United Kingdom*
[View Digest Text](#)

ORAL SESSIONS

Session DOA

SPIN CURRENTS, SPIN PUMPING, SPIN HALL, AND RELATED EFFECTS I

Guoqiang Yu, Chair

Chinese Academy of Sciences, Beijing, China

- DOA-01. **Control of spin currents and antiferromagnetic moments via topological surface states for ultralow energy consumption.** *(Invited) X. Chen¹, H. Bai¹, Y. Ji², X. Kou², F. Pan¹ and C. Song¹* *1. Tsinghua University, Beijing, China; 2. ShanghaiTech University, Shanghai, China*
[View Digest Text](#)
- DOA-02. **Power and Phase Profiles in Nano-constriction Based Synchronized Spin Hall Nano-oscillators near Threshold Current.** *W. Ronayne^{1,2}, A. Samanta^{1,2}, A. Amann^{3,4} and S. Roy^{1,2}* *1. Micropower Devices and Nanomagnetism Group, Tyndall National Institute, Cork, Ireland; 2. Department of Physics, University College Cork, Cork, Ireland; 3. School of Mathematical Sciences, University College Cork, Cork, Ireland; 4. Photonics Centre, Tyndall National Institute, Cork, Ireland*
[View Digest Text](#)
- DOA-03. **Effect of magnetic ordering on the spin Hall angle of epitaxial Ho(0001) thin films.** *B. Sahoo^{1,2}, Y. Xiao² and E. Fullerton²* *1. Physics, University of California, San Diego, La Jolla, CA, United States; 2. Center for Memory and Recording Research, University of California, San Diego, La Jolla, CA, United States*
[View Digest Text](#)
- DOA-04. **Anatomy of Type-x Spin-Orbit Torque Switching: Insights from Simulations and Experiments.** *Y. Liu¹, C. Huang¹, Y. Huang¹, K. Chen¹, C. Tsai¹, Y. Li¹, T. Chang¹, C. Cheng¹ and C. Pai^{1,2}* *1. Materials Science and Engineering, National Taiwan University, Taipei, Taiwan; 2. Center of Atomic Initiative for New Materials, National Taiwan University, Taipei, Taiwan*
[View Digest Text](#)
- DOA-05. **Direct Electrical Probing of Anomalous Nernst Conductivity.** *W. Zhou¹, A. Miura², Y. Sakuraba² and K. Uchida^{2,3}* *1. International Center for Young Scientists, National Institute for Materials Science (NIMS), Tsukuba, Japan; 2. Research Center for Magnetic and Spintronic Materials, National Institute for Materials Science (NIMS), Tsukuba, Japan; 3. Institute for Materials Research, Tohoku University, Sendai, Japan*
[View Digest Text](#)

- DOA-06. Spin-fluctuation induced enhancement for pure spin current.** P. Wu^{1,2}, D. Qu^{3,4}, Y. Tu^{1,2}, H. Liang¹, Y. Lin¹, S. Lee⁵, C. Chien⁶ and S. Huang^{1,4} 1. *Physics Department, National Taiwan University, Taipei, Taiwan*; 2. *Delta Electronics, Inc., Jhongli, Taiwan*; 3. *Center for Condensed Matter Sciences, National Taiwan University, Taipei, Taiwan*; 4. *Center of Atomic Initiative for New Materials, National Taiwan University, Taipei, Taiwan*; 5. *Institute of Physics, Academia Sinica, Taipei, Taiwan*; 6. *Physics and Astronomy, Johns Hopkins University, Baltimore, MD, United States*
[View Digest Text](#)
- DOA-07. State tomography for magnetization dynamics and persistent coherence in $Y_3Fe_5O_{12}$.** T. Hioki^{1,2}, T. Makiuchi², H. Shimizu², K. Hoshi², M. Elyasi¹, K. Yamamoto³, N. Yokoi², G. Bauer¹ and E. Saitoh^{2,1} 1. *AIMR, Tohoku University, Sendai, Japan*; 2. *Applied Physics, The University of Tokyo, Bunkyo, Japan*; 3. *Japan Atomic Energy Agency, Tokai, Japan*
[View Digest Text](#)
- DOA-08. Significant effect of carrier concentration on spin lifetime at low temperatures in strained $Si_{0.1}Ge_{0.9}$.** K. Kawashima¹, T. Naito^{1,2}, M. Yamada^{2,3}, T. Okada¹, Y. Wagatsuma⁴, K. Sawano⁴ and K. Hamaya^{2,5} 1. *Graduate School of Engineering Science, Osaka University, Toyonaka, Japan*; 2. *Center for Spintronics Research Network, Graduate School of Engineering Science, Osaka University, Toyonaka, Japan*; 3. *PRESTO, Japan Science and Technology Agency, Kawaguchi, Japan*; 4. *Advanced Research Laboratories, Tokyo City University, Setagaya, Japan*; 5. *Spintronics Research Network Division, Institute for Open and Transdisciplinary Research Initiatives, Osaka University, Toyonaka, Japan*
[View Digest Text](#)
- DOA-09. Nonreciprocal Parametric Magnon Excitation by Surface Mode.** S. Horibe¹, H. Shimizu¹, K. Hoshi¹, T. Hioki^{2,1} and E. Saitoh^{1,2} 1. *Applied Physics, The University of Tokyo, Tokyo, Japan*; 2. *Advanced Institute for Materials Research, Tohoku University, Sendai, Japan*
[View Digest Text](#)
- DOA-10. Ultra-low-current spin hall nano-oscillators.** N. Behera¹, A. Chaurasiya¹, V. Gonzalez¹, L. Bainsla¹, A. Kumar¹, A. Awad¹, H. Fulara² and J. Åkerman¹ 1. *Physics, University of Gothenburg, Gothenburg, Sweden*; 2. *Physics, Indian Institute of Technology Roorkee, Roorkee, India*
[View Digest Text](#)
- DOA-11. Spin voltage gradient is the driving force for ultrafast demagnetization and terahertz spin transport.** M. Rouzegar^{1,2}, L. Brandt³, L. Nadvornik⁴, D. Reiss¹, A. Chekhov^{1,2}, O. Gueckstock^{1,2}, C. In¹, M. Wolf², T. Seifert¹, P. Brouwer¹, G. Woltersdorf³ and T. Kampfrath^{1,2} 1. *Experimental Physik, Free University of Berlin, Berlin, Germany*; 2. *Physical Chemistry, Fritz-Haber-Institute of Max-Planck Society, Berlin, Germany*; 3. *Institut für Physik, Martin-Luther-Universität Halle, Halle, Germany*; 4. *Mathematics and Physics, Charles University in Prague, Prague, Czechia*
[View Digest Text](#)

Session DOB

**SPIN CURRENTS, SPIN PUMPING, SPIN HALL,
AND RELATED EFFECTS II**

Jiahao Han, Chair

Tohoku University, Tokyo, Japan

- DOB-01. Observation of a Strong Magnetic-Field-Induced Spin Seebeck Effect Suppression in a Nearly Compensated Ferrimagnet.** *R. Ramos*^{2,4}, *T. Hioki*^{1,3}, *T. Kikkawa*^{4,1}, *Y. Hashimoto*⁴ and *E. Saitoh*^{1,4} *1. Department of Applied Physics, The University of Tokyo, Tokyo, Japan; 2. CIQUS, Universidad de Santiago de Compostela, Santiago de Compostela, Spain; 3. Institute for Materials Research, Tohoku University, Sendai, Japan; 4. WPI Advanced Institute for Materials Research, Tohoku University, Sendai, Japan*
[View Digest Text](#)
- DOB-02. Topologically Influenced Spintronic Terahertz Emission in Co₂MnGa Weyl Semimetal.** *R. Mandal*¹, *R. Momma*¹, *K. Ishibashi*¹, *S. Iihama*¹, *K. Suzuki*¹ and *S. Mizukami*¹
1. Tohoku University, Sendai, Japan
[View Digest Text](#)
- DOB-03. Picosecond optospintronic tunnel junctions. (Invited)** *W. Zhao*¹ *1. Fert Beijing Institute, MIIT Key Laboratory of Spintronics, School of Integrated Circuit Science and Engineering, Beihang University, Beijing, China*
[View Digest Text](#)
- DOB-04. Scalable Spin-to-Charge Conversion Effect in the Inverse Spin Hall Nanodevice.** *Y. Lin*¹, *T. Hsin*¹, *Y. Wu*¹, *J. Sun*² and *Y. Tseng*¹ *1. Materials Science & Engineering, National Yang Ming Chiao Tung University, Hsinchu, Taiwan; 2. Industry Academia Innovation School, National Yang Ming Chiao Tung University, Hsinchu, Taiwan*
[View Digest Text](#)
- DOB-05. Observation of Spin-resolved Band Structure in Fe₃Ga Thin-films.** *K. Ohwada*¹, *K. Nakanishi*¹, *K. Kuroda*¹, *K. Miyamoto*¹, *T. Okuda*¹, *W. Zhou*², *T. Sasaki*², *K. Masuda*², *S. Isogami*², *Y. Sakuraba*² and *A. Kimura*¹ *1. Hiroshima University, Higashi-hiroshima, Japan; 2. National Institute for Materials Science (NIMS), Tsukuba, Japan*
[View Digest Text](#)
- DOB-06. Magnonic Unidirectional Spin Hall Magnetoresistance and Spin Seebeck Effect in Ferrimagnetic Alloys with Spin-Flop Transition.** *S. Ding*¹, *W. Legrand*¹, *P. Noël*¹, *R. Schlitz*¹, *G. Krishnaswamy*¹, *G. Sala*¹ and *P. Gambardella*¹
1. ETH Zurich, Zurich, Switzerland
[View Digest Text](#)
- DOB-07. Nonlocal detection of interlayer three-magnon coupling.** *L. Sheng*¹, *M. Elyasi*², *J. Chen*³, *G. Bauer*² and *H. Yu*¹
1. Beihang University, Beijing, China; 2. Tohoku University, Sendai, Japan; 3. Southern University of Science and Technology, Shenzhen, China
[View Digest Text](#)

- DOB-08. High Spin-Charge Conversion Efficiency of $\text{Co}_3\text{Sn}_2\text{S}_2$ Promoted by Transition from Paramagnetic to Ferromagnetic Phase.** *T. Seki*¹, *Y. Lau*^{1,2}, *J. Ikeda*^{1,4}, *K. Fujiwara*¹, *A. Ozawa*¹, *S. Iihama*^{3,4}, *K. Nomura*^{1,5} and *A. Tsukazaki*^{1,6} *1. Institute for Materials Research, Tohoku University, Sendai, Japan; 2. Institute of Physics, Chinese Academy of Sciences, Beijing, China; 3. Frontier Research Institute for Interdisciplinary Sciences, Tohoku University, Sendai, Japan; 4. WPI Advanced Institute for Materials Research, Tohoku University, Sendai, Japan; 5. Department of Physics, Kyushu University, Fukuoka, Japan; 6. Center for Science and Innovation in Spintronics, Tohoku University, Sendai, Japan*
[View Digest Text](#)
- DOB-09. Origin of Field-Free Switching in Obliquely Deposited Pt/Co/Pt Structures.** *C. Hu*¹, *W. Chen*¹, *Y. Liu*¹, *C. Huang*¹ and *C. Pai*^{1,2} *1. Materials Science and Engineering, National Taiwan University, Taipei, Taiwan; 2. Taiwan Semiconductor Manufacturing Company, Taipei, Taiwan*
[View Digest Text](#)
- DOB-10. Amplification of electron-mediated spin currents by stimulated spin pumping.** *B.J. Assouline*¹, *M. Brik*¹, *N. Bernstein*¹ and *A. Capua*¹ *1. Applied Physics, The Hebrew University of Jerusalem, Jerusalem, Israel*
[View Digest Text](#)
- DOB-11. Spin to charge conversion in ferroelectric Germanium Telluride (GeTe) for a new generation of logic devices.** *S. Teresi*¹, *T. Frottier*¹, *M. Cosset-Cheneau*¹, *A. Kandazoglou*¹, *P. Sgarro*¹, *M. Wissmann*¹, *M. Culot*¹, *P. Noé*², *J. Patterson*¹, *F. Hippert*⁵, *L. Hutin*², *F. Cheynis*³, *F. Leroy*³, *B. Cores*³, *M. Bibes*⁴, *G. Prenat*¹, *A. Marty*¹, *J. Attané*¹ and *L. Vila*¹ *1. Université Grenoble Alpes / CEA / IRIG / SPINTEC, Grenoble, France; 2. Université Grenoble Alpes / CEA / LETI, Grenoble, France; 3. Aix Marseille Université / CNRS / CINAM / AMUTECH, Marseille, France; 4. Unité Mixte de Physique CNRS/Thalès, Université Paris-Saclay, Palaiseau, France; 5. Université Grenoble Alpes / CNRS / Grenoble INP / LMGP, Grenoble, France*
[View Digest Text](#)

ORAL SESSIONS

Session DOC
**SPIN CURRENTS, SPIN PUMPING, SPIN HALL,
 AND RELATED EFFECTS III**

Christoforos Moutafis, Chair
 University of Manchester, Manchester, United Kingdom

- DOC-01. Withdrawn**
- DOC-02. Single layer spin-orbit torque in $\text{Mn}_2\text{Ru}_{0.9}\text{Ga}$.** *S. Lenne*¹, *G. Acheson*¹, *R. Smith*¹, *P.S. Stamenov*¹ and *K. Rode*¹
1. Trinity College Dublin, Dublin, Ireland
[View Digest Text](#)

- DOC-03. Gate-Tunable and Chirality-Dependent Unidirectional Magnetoresistance in Tellurium Nanowires.** *F. Calavalle*^{1,2}, *M. Suárez-Rodríguez*¹, *B. Martín-García*^{1,3}, *A. Johansson*^{4,5}, *D. Vaz*¹, *H. Yang*¹, *I.V. Maznichenko*⁴, *S. Ostanin*⁵, *A. Mateo-Alonso*^{6,3}, *A. Chuvilin*^{1,3}, *I. Mertig*⁴, *M. Gobbi*^{1,3}, *F. Casanova*^{1,3} and *L. Hueso*^{1,3} 1. *CIC nanoGUNE BRTA, Donostia - San Sebastian, Spain*; 2. *Department of Electronic Science and Engineering, Kyoto University, Kyoto, Japan*; 3. *Ikerbasque, Bilbao, Spain*; 4. *Institute of Physics, Martin-Luther-University Halle-Wittenberg, Halle, Germany*; 5. *Max Planck Institute of Microstructure Physics, Halle, Germany*; 6. *POLYMAT, Donostia - San Sebastian, Spain*
[View Digest Text](#)
- DOC-04. Effect of layer thickness to the in-plane coercive field and anomalous Nernst effect in Sm/Co multilayer films.** *R. Modak*¹, *W. Zhou*¹, *Y. Sakuraba*¹ and *K. Uchida*^{1,2}
1. *National Institute for Materials Science (NIMS), Tsukuba, Japan*; 2. *Institute for Materials Research, Tohoku University, Sendai, Japan*
[View Digest Text](#)
- DOC-05. Determining the Mechanism of Transverse Spin-Current Absorption in Nanometer-Thick Ferromagnets.** *Y. Lim*¹, *S. Wu*¹, *D.A. Smith*¹, *C. Klewe*², *P. Shafer*² and *S. Emori*¹
1. *Virginia Tech, Blacksburg, VA, United States*; 2. *Lawrence Berkeley National Laboratory, Berkeley, CA, United States*
[View Digest Text](#)
- DOC-06. Effects of Elemental Doping and Interface Engineering on Spin-Orbit Torques in CoSi-based Topological Semimetal Thin Films.** *K. Tang*^{1,2}, *Z. Wen*¹, *T. Seki*³, *H. Sukegawa*¹ and *S. Mitani*^{1,2} 1. *National Institute for Materials Science (NIMS), Tsukuba, Japan*; 2. *University of Tsukuba, Tsukuba, Japan*; 3. *Tohoku University, Sendai, Japan*
[View Digest Text](#)
- DOC-07. Nonlinear Hall Effect Driven by Electric Field and Temperature Gradient with Three-Dimensional Magnetic Textures.** *T. Yamaguchi*², *K. Nakazawa*¹ and *A. Yamakage*³
1. *Department of Applied Physics, The University of Tokyo, Tokyo, Japan*; 2. *Center for Emergent Matter Science, RIKEN, Wako, Japan*; 3. *Department of Physics, Nagoya University, Nagoya, Japan*
[View Digest Text](#)
- DOC-08. Spin-Gapless Semiconducting Properties in a Polycrystalline CoCrFeAl Heusler-Alloy Film.** *T. Sarfo*¹ and *A. Hirohata*¹ 1. *University of York, York, United Kingdom*
[View Digest Text](#)
- DOC-09. Circular Memristive Nano-Gates on Spin Hall Nano Oscillators.** *M. Khademi*^{1,2}, *A. Kumar*³, *M. Rajabali*², *S.P. Dash*¹ and *J. Åkerman*³ 1. *Department of Microtechnology and Nanoscience, Chalmers University of Technology, Gothenburg, Sweden*; 2. *NanOsc AB, Kista, Sweden*; 3. *Physics Department, University of Gothenburg, Gothenburg, Sweden*
[View Digest Text](#)

- DOC-10. Antimagnonics and enhancing the magnon spin current using the bosonic Klein paradox.** *J.S. Harms*¹, *H. Yuan*¹ and *R.A. Duine*^{1,2} *1. Utrecht University, Utrecht, Netherlands; 2. Eindhoven University of Technology, Eindhoven, Netherlands*
[View Digest Text](#)
- DOC-11. Nonreciprocal Magnon Hanle Effect in Antiferromagnetic α -Fe₂O₃.** *J. Gückelhorn*^{1,2}, *S. de-la-Peña*³, *M. Scheufele*^{1,2}, *M. Grammer*^{1,2}, *M. Opel*¹, *S. Geprägs*¹, *J.C. Cuevas*³, *R. Gross*^{1,2}, *H. Huebl*^{1,2}, *A. Kamra*³ and *M. Althammer*^{1,2} *1. Walther-Meissner-Institut, Bayerische Akademie der Wissenschaften, Garching, Germany; 2. TUM School of Natural Sciences, Technical University of Munich, Garching, Germany; 3. Condensed Matter Physics Center (IFIMAC), Universidad Autónoma de Madrid, Madrid, Spain*
[View Digest Text](#)
- DOC-12. Thermoelectric Generation in Y₃Fe₅O₁₂/Co-Ru/Pt Systems.** *Y. Ikeda*¹, *Y. Hamada*¹, *Y. Kurokawa*¹, *C. Martin Valderrama*², *B. Andreas*² and *H. Yuasa*¹ *1. Kyushu University, Fukuoka, Japan; 2. CIC nanoGUNE, San Sebastian, Spain*
[View Digest Text](#)
- DOC-13. THz emission from Fe/Pt spintronic emitters with L1₀-FePt alloyed interface.** *L. Scheuer*¹, *M. Ruhwedel*¹, *L. Franke*¹, *D. Sokoluk*¹, *G. Torosyan*², *G. Vourlias*³, *M. Rahm*¹, *B. Hillebrands*¹, *T. Kehagias*³, *R. Beigang*¹ and *E. Papaioannou*^{4,3} *1. Rheinland-Pfälzische Technische Universität Kaiserslautern-Landau, Kaiserslautern, Germany; 2. Photonic Center Kaiserslautern, Kaiserslautern, Germany; 3. Aristotle University of Thessaloniki, Thessaloniki, Greece; 4. Martin-Luther-University Halle-Wittenberg, Halle, Germany*
[View Digest Text](#)

ORAL SESSIONS

Session DOD

VOLTAGE-CONTROLLED MAGNETIC ANISOTROPY I

Tom Thomson, Chair

University of Manchester, Manchester, United Kingdom

- DOD-01. Antiferromagnetic Tunnel Junctions for Spintronics.** *(Invited) E.Y. Tsymlal*¹ *1. Department of Physics and Astronomy, University of Nebraska-Lincoln, Lincoln, NE, United States*
[View Digest Text](#)
- DOD-02. Orbital Polarization Enhanced by Electron Correlation at the Fe/MgO Interface: A Depth-Resolved X-Ray Magnetic Circular Dichroism Study.** *S. Sakamoto*¹, *M. Tsujikawa*², *M. Shirai*², *K. Amemiya*³ and *S. Miwa*^{1,4} *1. The Institute for Solid State Physics, The University of Tokyo, Kashiwa, Japan; 2. Research Institute of Electrical Communication, Tohoku University, Sendai, Japan; 3. Institute of Materials Structure Science, KEK, Tsukuba, Japan; 4. Trans-scale Quantum Science Institute, The University of Tokyo, Bunkyo, Japan*
[View Digest Text](#)

- DOD-03. Voltage-controlled magnetic easy-cone states for low-power spintronic applications.** *J. Jeong*¹, *M. Kang*¹, *S. Lee*¹, *J. Kang*¹, *K. Lee*¹ and *B. Park*¹ *1. Korea Advanced Institute of Science and Technology (KAIST), Daejeon, The Republic of Korea*
[View Digest Text](#)
- DOD-04. Withdrawn**
- DOD-05. Effect of alkali halide layer insertions on magnetic anisotropy at the Fe/MgO interface.** *J. Chen*¹, *S. Sakamoto*¹, *H. Kosaki*¹ and *S. Miwa*^{1,2} *1. The Institute for Solid State Physics, The University of Tokyo, Chiba, Japan; 2. Trans-scale Quantum Science Institute, The University of Tokyo, Tokyo, Japan*
[View Digest Text](#)
- DOD-06. Interface control of anisotropy in CoFeB/MgO/HfO₂ using dusting layers and magneto-ionic gating.** *T. Bhatnagar-Schöffmann*¹, *A. Kovács*², *R. Pachat*¹, *D. Ourdani*³, *A. Lamperti*⁴, *M. Syskaki*⁵, *T. da Câmara Santa Clara Gomes*⁶, *Y. Roussigné*³, *S. Ono*⁷, *J. Langer*⁵, *R.E. Dunin-Borkowski*², *P. Schöffmann*⁸, *D. Ravelosona*^{1,9}, *M. Belmeguenai*³, *A. Solignac*¹⁰ and *L. Herrera Diez*¹ *1. Centre de Nanosciences et de Nanotechnologies, CNRS, Université Paris-Saclay, Palaiseau, France; 2. Forschungszentrum Jülich GmbH, Ernst Ruska-Centre for Microscopy and Spectroscopy with Electrons and Peter Grünberg Institute (PGI-5), Jülich, Germany; 3. Laboratoire des Sciences des Procédés et des Matériaux, CNRS-UPR 3407, Université Sorbonne Paris Nord, Villetaneuse, France; 4. CNR-IMM, Agrate Unit, Agrate-Brianza, Italy; 5. Singulus Technologies AG, Kahl am Main, Germany; 6. Unité Mixte de Physique CNRS/Thales, Université Paris-Saclay, Palaiseau, France; 7. Central Research Institute of Electric Power Industry, Yokosuka, Japan; 8. Synchrotron SOLEIL, Saint Aubin, France; 9. Spin-Ion Technologies, Palaiseau, France; 10. SPEC, CEA, CNRS, Université Paris-Saclay, Gif-sur-Yvette, France*
[View Digest Text](#)

ORAL SESSIONS

Session DOE

VOLTAGE-CONTROLLED MAGNETIC ANISOTROPY II

Ivan Vera Marun, Chair

University of Manchester, Manchester, United Kingdom

- DOE-01. Advances in Magnetic Tunnel Junctions and Voltage-Induced Dynamic Switching for Voltage-Controlled MRAM. (Invited)** *S. Yuasa*¹, *T. Nozaki*¹, *T. Yamamoto*¹, *T. Ichinose*¹, *T. Nozaki*¹, *H. Onoda*¹, *A. Sugihara*¹, *R. Matsumoto*¹, *H. Imamura*¹, *H. Nakayama*¹, *M. Konoto*¹ and *K. Yakushiji*¹ *1. National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan*
[View Digest Text](#)

- DOE-02. VCMA-MTJ: Towards GHz operation low power MRAM. (Invited)** W. Kim¹, R. Carpenter¹, K. Sankaran¹, S. Rao¹, D. Favaro¹, N. Jossart¹, N. Franchina Vergel¹, D. Crotti¹, K. Wostyn¹, G. Kar¹ and S. Couet¹ *1. Imec, Leuven, Belgium*
[View Digest Text](#)
- DOE-03. Magneto-Transport Properties of CoFeB/MgO/CoFeB Magnetic Tunnel Junctions Deposited at Cryogenic Temperature.** T. Ichinose¹, T. Yamamoto¹, T. Nozaki¹, K. Yakushiji¹, S. Tamaru¹, M. Konoto¹ and S. Yuasa¹
1. National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan
[View Digest Text](#)
- DOE-04. Solid-State Lithium-Ion Supercapacitor for Voltage Control of Skyrmions.** M. Ameziane¹, J. Huhtasalo¹, L. Flajšman¹, R. Mansell¹ and S. van Dijken¹ *1. Applied Physics, Aalto University, Espoo, Finland*
[View Digest Text](#)
- DOE-05. Interplay of voltage-controlled magnetic anisotropy and spin-orbit torque in IrMn-based perpendicular magnetic tunnel junctions.** J. Lu², W. Li¹, J. Liu², Z. Liu², Y. Wang², C. Jiang², J. Du², S. Lu¹, N. Lei², S. Peng² and W. Zhao²
1. Beihang University, Beijing, China; 2. School of Integrated Circuit Science and Engineering, Beihang University, Beijing, China
[View Digest Text](#)
- DOE-06. Electric field control of RKKY coupling through solid-state ionics.** R. Mansell¹, M. Ameziane¹, R. Rosenkamp¹, L. Flajšman¹ and S. van Dijken¹ *1. Department of Applied Physics, Aalto University, Espoo, Finland*
[View Digest Text](#)

POSTER SESSION

Session DPA

SPIN CURRENTS, SPIN PUMPING, SPIN HALL, AND RELATED EFFECTS IV (Poster Session)

Tatsuya Yamamoto, Co-Chair

National Institute of Advanced Industrial Science and Technology
(AIST), Tsukuba, Japan

Rajkumar Modak, Co-Chair

National Institute for Materials Science (NIMS), Tsukuba, Japan

- DPA-01. Systematic study of parallel parametric amplification of magnetization dynamics in YIG thin disk.** G. Emdi¹, T. Hioki^{2,1} and E. Saitoh^{1,2} *1. Department of Applied Physics, The University of Tokyo, Bunkyo, Japan; 2. Advanced Institute for Material Research, Tohoku University, Sendai, Japan*
[View Digest Text](#)

- DPA-02. Atomic Layer Deposition of Perpendicularly Magnetized Co Layers Showing Current-induced Domain Wall Motion.** M. Kado¹, Y. Tokuda¹, Y. Ootera¹, N. Umetsu¹, M. Quinsat¹, H. Fukumizu¹ and T. Kondo¹ *I. Kioxia Corporation, Yokohama, Japan*
[View Digest Text](#)
- DPA-03. Spin-Orbit Torques in PtCr and PtCu multi-layers/Co bi-layers.** W. Janssens^{1,2}, G. Talmelli², K. Cai², R. Carpenter², J. De Boeck^{1,2} and S. Couet² *1. Department of Electrical Engineering, KU Leuven, Leuven, Belgium; 2. Imec, Leuven, Belgium*
[View Digest Text](#)
- DPA-04. Spin-orbit torques in Co₂MnGa magnetic Weyl semimetal thin films.** L. Bainsla^{1,2}, Y. Sakuraba³, A. Awad², A. Kumar², N. Behera², R. Khymyn², S.P. Dash¹ and J. Åkerman²
1. Department of Microtechnology and Nanoscience, Chalmers University of Technology, Gothenburg, Sweden; 2. Physics Department, University of Gothenburg, Gothenburg, Sweden; 3. Research Center for Magnetic and Spintronic Materials, National Institute for Materials Science, Tsukuba, Japan
[View Digest Text](#)
- DPA-05. Anomalous Hall Transport of Ferrimagnetic Inverse Heusler Alloy Mn₂PdSn.** A. Bhattacharya¹, S. Dutttagupta¹ and I. Das¹ *1. Condensed Matter Physics, Saha Institute of Nuclear Physics, Kolkata, India*
[View Digest Text](#)
- DPA-06. Nano artificial alloys in bulk-immiscible Ru-Cu system for spin-current generation.** C. He¹, J. Song^{1,2}, Z. Wen¹, H. Sukegawa¹, Y. Miura¹, T. Ohkubo¹, Y. Nozaki³ and S. Mitani^{1,2} *1. National Institute for Materials Science (NIMS), Tsukuba, Japan; 2. Graduate School of Pure and Applied Sciences, University of Tsukuba, Tsukuba, Japan; 3. Department of Physics, Keio University, Yokohama, Japan*
[View Digest Text](#)
- DPA-07. Quantification of Spin Accumulation in Ferromagnetic Heterostructure using DC Bias Harmonic Hall Measurement.** H. Poh¹, C.C. Ang¹, W. Lew¹ and G.J. Lim¹
1. School Physical and Mathematical Sciences, Nanyang Technological University, Singapore, Singapore
[View Digest Text](#)
- DPA-08. High-Throughput Calculation of Transverse Transport Properties in Heusler Compounds.** G. Xing¹, K. Masuda¹, T. Tadano¹ and Y. Miura¹ *1. National Institute for Materials Science (NIMS), Tsukuba, Japan*
[View Digest Text](#)

- DPA-09. Spin Hall Effect in Se-implanted Pt from Extrinsic Scattering.** G. Vashisht¹, U. Shashank¹, Y. Kusaba¹, T. Tomoda¹, R. Nongjai², P. Murmu³, J. Kennedy³, R. Medwal⁴, S. Gupta⁵, R. Rawat⁵, A. Kandasami⁶, H. Asada⁷ and Y. Fukuma¹ 1. Department of Physics and Information Technology, Faculty of Computer Science and System Engineering, Kyushu Institute of Technology, Iizuka, Japan; 2. Materials Science Division, Inter-University Accelerator Centre, Delhi, India; 3. National Isotope Centre, GNS Science, Lower Hutt, New Zealand; 4. Department of Physics, Indian Institute of Technology, Kanpur, India; 5. Natural Sciences and Science Education, National Institute of Education, Nanyang Technological University, Singapore, Singapore; 6. Department of Physics & Centre for Interdisciplinary Research, University of Petroleum and Energy Studies, Dehradun, India; 7. Graduate School of Sciences and Technology for Innovation, Yamaguchi University, Ube, Japan
[View Digest Text](#)
- DPA-10. Thickness dependence of Gilbert damping in Ta/CoFeB/MgO films probed by Tr-MOKE.** Y. Gong¹, X. Lu¹, J. Su², Z. Chen¹, L. Yang¹, Y. Yan¹, Y. Li¹, X. Ruan¹, J. Du³, J. Cai², J. Wu⁴, L. He¹, R. Zhang¹, H. Meng⁵, B. Liu⁵ and Y. Xu^{1,4} 1. School of Electronic Science and Engineering, Nanjing University, Nanjing, China; 2. Institute of Physics, Chinese Academy of Sciences, Beijing, China; 3. Department of Physics, Nanjing University, Nanjing, China; 4. York-Nanjing Joint Center (YNJC) for Spintronics and Nano-engineering, Department of Electronics and Physics, University of York, York, United Kingdom; 5. Devices and Systems of Zhejiang Province, Hangzhou, China
[View Digest Text](#)
- DPA-11. Spin current generation in highly conductive Ru/Cu epitaxial heterostructures.** Z. Wen¹, J. Song^{1,2}, C. He¹, T. Scheike¹, H. Sukegawa¹, T. Ohkubo¹, Y. Nozaki³ and S. Mitani^{1,2} 1. National Institute for Materials Science, Tsukuba, Japan; 2. Graduate School of Pure and Applied Sciences, University of Tsukuba, Tsukuba, Japan; 3. Department of Physics, Keio University, Yokohama, Japan
[View Digest Text](#)
- DPA-12. Spin Swapping Effect of Band Structure Origin in Centrosymmetric Ferromagnets.** H. Park¹, H. Ko², G. Go², J. Oh³, K. Kim⁴ and K. Lee² 1. KU-KIST Graduate School of Converging Science and Technology, Korea University, Seoul, The Republic of Korea; 2. Department of Physics, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, The Republic of Korea; 3. Department of Materials Science and Engineering, Korea University, Seoul, The Republic of Korea; 4. Center of Spintronics, Korea Institute of Science and Technology, Seoul, The Republic of Korea
[View Digest Text](#)
- DPA-13. Withdrawn**
- DPA-14. Spin-Pump-Induced Spin Transport in A Thermally Evaporated Naphthyl Diamine Derivative Film.** E. Shikoh^{1,2}, Y. Onishi² and Y. Teki^{1,2} 1. Osaka Metropolitan University, Osaka, Japan; 2. Osaka City University, Osaka, Japan
[View Digest Text](#)

- DPA-15. Optical spin-orbit torque measurement of poly-Bi/CoFeB bilayer.** *S. Kim*¹ *1. Department of Energy Science, Sungkyunkwan University, Suwon, The Republic of Korea*
[View Digest Text](#)
- DPA-16. An Electromotive Force in Pt/VO₂/Ni₈₀Fe₂₀ Tri-Layer Junctions Under the Ferromagnetic Resonance.** *T. Nishimura*^{1,2}, *F. Kishi*¹, *S. Yamauchi*¹, *T. Kanki*³ and *E. Shikoh*^{1,2} *1. Osaka City University, Osaka, Japan; 2. Osaka Metropolitan University, Osaka, Japan; 3. Osaka University, Osaka, Japan*
[View Digest Text](#)
- DPA-17. Independent Control of Spin-Orbit Torque.** *S. Lee*¹, *J. Park*¹, *M. Kim*¹, *M. Kim*¹, *J. Shin*¹ and *S. Choe*¹ *1. Seoul National University, Seoul, The Republic of Korea*
[View Digest Text](#)

POSTER SESSION

Session DPB

SPIN CURRENTS, SPIN PUMPING, SPIN HALL, AND RELATED EFFECTS V (Poster Session)

Shoya Sakamoto, Chair
The University of Tokyo, Kashiwa, Japan

- DPB-01. Independent Control of Field-like Spin-Orbit Torque by Adjusting Ferromagnet Thickness.** *J. Yoon*¹, *M. Kim*¹, *S. Lee*¹, *D. Kim*² and *S. Choe*¹ *1. Physics and Astronomy, Seoul National University, Seoul, The Republic of Korea; 2. Center for Spintronics, Korea Institute of Science and Technology, Seoul, The Republic of Korea*
[View Digest Text](#)
- DPB-02. Magneto-electric signal due to microwave heating in ferromagnetic/nonmagnetic bilayer system.** *S. Obinata*¹, *R. Iimori*¹, *R. Kajima*¹, *T. Tanaka*¹ and *T. Kimura*¹ *1. Physics, Kyushu University, Fukuoka, Japan*
[View Digest Text](#)
- DPB-03. Spin Hall magnetoresistance of CoFe₂O₄/Pt heterostructures with interface non-collinear magnetic configurations.** *J. Guo*¹, *K. Meng*¹, *T. Zhang*¹, *J. Liu*¹, *J. Chen*¹, *Y. Wu*¹, *X. Xu*¹ and *Y. Jiang*¹ *1. University of Science and Technology Beijing, Beijing, China*
[View Digest Text](#)
- DPB-04. Generation of Spin-wave Soliton using Magnetostatic Surface Mode.** *T. Iwata*¹, *T. Eguchi*¹ and *K. Sekiguchi*¹ *1. Yokohama National University, Yokohama, Japan*
[View Digest Text](#)
- DPB-05. Mechanical Spin Current Generation via Intrinsic Spin-Orbit Interaction with Spatial Inversion Symmetry.** *Y. Ogawa*¹ and *H. Kohno*¹ *1. Physics, Nagoya University, Nagoya, Japan*
[View Digest Text](#)

- DPB-06. Transition from digital to analog spin-orbit torque switching in PtMn/(Co/Pd)_n/Ta heterostructures using current treatment.** *A. Ranjan*¹ *1. Materials Science and Engineering, National Tsing Hua University, Hsinchu, Taiwan*
[View Digest Text](#)
- DPB-07. Electrical Determination of Magnetization Switching in In-plane Anisotropy Spin-orbit Systems.** *Y. Huang*¹, *Y. Lin*¹, *Y. Wu*¹ and *Y. Tseng*¹ *1. Materials Science & Engineering, National Yang Ming Chiao Tung University, Hsinchu, Taiwan*
[View Digest Text](#)
- DPB-08. Microfabrication and Characterization of Ferromagnetic Metal/Nonmagnetic Semiconductor Junctions for Spin Pumping-Induced Highly Efficient Spin Injection.** *T.S. Balland*^{1,2}, *T. Seki*^{2,3}, *T. Yamazaki*², *R.Y. Umetsu*², *M. Ogawa*⁴, *T. Uemura*⁴ and *K. Takanashi*^{2,5} *1. Graduate School of Engineering, Tohoku University, Sendai, Japan; 2. Institute for Materials Research, Tohoku University, Sendai, Japan; 3. JST-CREST, Tokyo, Japan; 4. Faculty of Information Science and Technology, Hokkaido University, Sapporo, Japan; 5. Advanced Science Research Center, Japan Atomic Energy Agency, Tokai, Japan*
[View Digest Text](#)
- DPB-09. A new method for emitting spin-polarized electron.** *Y. Chow*¹, *S. Chao*¹, *P. Jiang*², *C. Chang*¹ and *C. Chang*¹ *1. Department of Electronic Engineering, Minghsin University of Science and Technology, Hsinchu, Taiwan; 2. Department of Mechanical Engineering, Minghsin University of Science and Technology, Hsinchu, Taiwan*
[View Digest Text](#)
- DPB-10. Observation of Anomalous Nernst Effect in Flexible Co-Pt Nanoparticle Assembled Films Fabricated by Chemical Processes.** *Y. Kurokawa*¹, *K. Yamada*², *H. Matsui*², *M. Shima*² and *H. Yuasa*¹ *1. Graduate School and Faculty of Information Science and Electrical Engineering, Kyushu University, Fukuoka, Japan; 2. Graduate School of Natural Science and Technology, Gifu University, Gifu, Japan*
[View Digest Text](#)
- DPB-11. Four-terminal sensing of laser-induced anomalous-Nernst voltages.** *S. Mochizuki*¹, *T. Obayashi*¹, *I. Sugiura*², *Y. Shiota*², *T. Moriyama*², *T. Ono*², *T. Satoh*¹ and *K. Yamada*¹ *1. Department of Physics, Tokyo Institute of Technology, Meguro, Japan; 2. Institute of Chemical Research, Kyoto University, Uji, Japan*
[View Digest Text](#)
- DPB-12. Withdrawn**
- DPB-13. Determination of Spin Transport Properties of Non-collinear Antiferromagnets in Tunnel Junctions.** *C. Fang*¹, *B.K. Hazra*¹ and *S. Parkin*¹ *1. NISE, Max Planck Institute for Microstructure Physics, Halle (Saale), Germany*
[View Digest Text](#)

- DPB-14. First-Principles Simulation of Anomalous- and Spin-Hall Effect in Fe–Co Disordered Systems.** *Y. Kota*¹ and *A. Sakuma*² *1. National Institute of Technology, Fukushima College, Iwaki, Japan; 2. Department of Applied Physics, Tohoku University, Sendai, Japan*
[View Digest Text](#)
- DPB-15. Experimental and Theoretical Evaluation for Pressure Effects on Spin Hall Effect in Pt.** *R. Iimori*¹, *S. Obinata*¹, *T. Yamazaki*¹, *A. Mitsuda*¹ and *T. Kimura*¹ *1. Physics, Kyushu University, Fukuoka, Japan*
[View Digest Text](#)
- DPB-16. Spin-orbit effective fields generated by geometric rotation induced novel spin polarization.** *C. Pan*¹ and *X. Qiu*¹ *1. School of Physics Science and Engineering, Tongji University, Shanghai, China*
[View Digest Text](#)
- DPB-17. Withdrawn**

POSTER SESSION

Session DPC
VOLTAGE-CONTROLLED ANISOTROPY AND
SPIN-CURRENTS
(Poster Session)

Saroj Dash, Co-Chair
Chalmers Tekniska Hogskola, Gothenburg, Sweden
Lakhan Bainsla, Co-Chair
Chalmers University of Technology, Gothenburg, Sweden

- DPC-01. Sub-Volt Switching of Nanoscale Voltage-Controlled Magnetic Random-Access Memory Cell.** *Y. Shao*¹, *V. Lopez-Dominguez*¹, *N. Davila*², *Q. Sun*³, *N. Kioussis*⁴, *J. Katine*² and *P. Khalili*¹ *1. Department of Electrical and Computer Engineering, Northwestern University, Evanston, IL, United States; 2. Western Digital, San Jose, CA, United States; 3. School of Science, Shandong Jianzhu University, Jinan, China; 4. Department of Physics and Astronomy, California State University, Northridge, CA, United States*
[View Digest Text](#)
- DPC-02. Voltage control of frequency and effective damping in nano-constriction-based spin Hall nano-oscillators.** *V. Gonzalez*¹, *R. Khymyn*¹, *H. Fulara*², *A.A. Awad*¹ and *J. Åkerman*¹ *1. University of Gothenburg, Gothenburg, Sweden; 2. Indian Institute of Technology, Roorkee, India*
[View Digest Text](#)

- DPC-03. Systematic study of the strength of VCMA effect in nanomagnets of small and large strength of spin-orbit interaction.** *V. Zayets*¹, *I. Serdeha*² and *V. Grygoruk*²
1. Platform Photonics Research Center, National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan; 2. Educational and Scientific Institute of High Technologies, Taras Shevchenko National University of Kyiv, Kyiv, Ukraine
[View Digest Text](#)
- DPC-04. Magnetic compensation behavior driven by excess Mn in ferrimagnet Mn_{2.21}Ru_{0.86}Ga thin films.** *C. Dou*¹, *X. Xu*¹, *K. Yang*², *C. Li*¹, *T. Zhang*¹, *Z. Zhu*¹, *X. Zhao*¹, *K. Meng*¹, *Y. Wu*¹, *J. Chen*¹, *M. Yang*² and *Y. Jiang*¹ *1. University of Science and Technology Beijing, Beijing, China; 2. The Hong Kong Polytechnic University, Hong Kong, China*
[View Digest Text](#)
- DPC-05. Write-error rate estimation of voltage-controlled magnetization switching in a magnetic-topological-insulator-based device.** *T. Komine*¹, *S. Watahiki*¹ and *T. Chiba*² *1. Ibaraki University, Ibaraki, Japan; 2. Fukushima National College of Technology, Fukushima, Japan*
[View Digest Text](#)
- DPC-06. Engineering of Voltage Controlled Magnetic Anisotropy Magnetic Tunnel Junctions at Cryogenic Temperatures.** *P. Brandao Veiga*¹, *R. Sousa*¹, *L.D. Buda-Prejbeanu*¹, *S. Auffret*¹, *L. Vila*¹, *I. Joumard*¹, *I. Prejbeanu*¹ and *B. Dieny*¹
1. CEA-SPINTEC, Grenoble, France
[View Digest Text](#)
- DPC-07. Electrically controllable exchange bias via interface magnetoelectric effect.** *A.B. Cahaya*¹, *A.A. Anderson*¹, *A. Azhar*² and *M.A. Majidi*¹ *1. Physics, Universitas Indonesia, Depok, Indonesia; 2. UIN Syarif Hidayatullah Jakarta, Jakarta, Indonesia*
[View Digest Text](#)
- DPC-08. Withdrawn**
- DPC-09. Comparative study on the origin of spin Hall effect in poly and single crystalline α -W in W/CoFeB bilayers.** *M. Talluri*^{1,2}, *Z. Wen*¹, *C. Murapaka*¹ and *S. Mitani*¹
1. Spintronics Group, National Institute for Materials Science (NIMS), Tsukuba, Japan; 2. Materials Science and Metallurgical Engineering, IIT Hyderabad, Hyderabad, India
[View Digest Text](#)
- DPC-10. Large spin Hall conductivity in epitaxial thin films of non-collinear antiferromagnet Mn₃Sn.** *H. Bangar*¹, *K. Imtiyaz Ali Khan*¹, *A. Kumar*², *N. Chowdhury*¹, *P. Muduli*³ and *P. Kishor Muduli*¹ *1. Department of Physics, Indian Institute of Technology Delhi, New Delhi, India; 2. Department of Physics, University of Gothenburg, Gothenburg, Sweden; 3. Department of Physics, Indian Institute of Technology Madras, Chennai, India*
[View Digest Text](#)

- DPC-11. Manipulating Sign and Amplitude of Interlayer Dzyaloshinskii-Moriya Interaction by Electrical Currents.** *F. Kammerbauer*¹, *W. Choi*¹, *F. Freimuth*^{1,2}, *K. Lee*^{1,3}, *R. Frömter*¹, *D. Han*⁴, *R. Lavrijsen*⁵, *H. Swagten*⁵, *Y. Mokrousov*^{1,2} and *M. Kläui*¹ *1. Institute of Physics, Johannes Gutenberg University, Mainz, Germany; 2. Forschungszentrum Jülich, Jülich, Germany; 3. Korea University, Sejong, The Republic of Korea; 4. Korea Institute of Science and Technology, Seoul, The Republic of Korea; 5. Eindhoven University of Technology, Eindhoven, Netherlands*
[View Digest Text](#)
- DPC-12. Acoustic spin transport in s-wave superconductors.** *T. Funato*², *A. Yamakage*¹ and *M. Matsuo*³ *1. Nagoya University, Nagoya, Japan; 2. Keio University, Yokohama, Japan; 3. University of Chinese Academy of Sciences, Beijing, China*
[View Digest Text](#)
- DPC-13. Effect of sputtering process parameters on tungsten structural phases and its spin Hall angle.** *K. Sriram*¹, *R. Mondal*¹, *Y. Pappu*¹, *J. Pradhan*², *A. Haldar*² and *C. Murapaka*¹ *1. Department of Materials Science and Metallurgical Engineering, Indian Institute of Technology Hyderabad, Sangareddy, India; 2. Department of Physics, Indian Institute of Technology Hyderabad, Sangareddy, India*
[View Digest Text](#)
- DPC-14. Single Domain Spin Orbit Torque Enabled Magnetic Field Sensor With Offset Compensation.** *S. Zeilinger*^{1,2}, *J. Guettinger*², *A. Satz*², *S. Koraltan*¹ and *D. Suess*¹ *1. Physics of Functional Materials, University of Vienna, Vienna, Austria; 2. Infineon Technologies Austria, Villach, Austria*
[View Digest Text](#)

Session EOA

BIOMAGNETICS I: THERAPY AND DIAGNOSTICS

Ron Goldfarb, Co-Chair

National Institute of Standards and Technology, Boulder,
CO, United States

Maria Luisa Fernandez Gubieda, Co-Chair

Universidad del Pais Vasco, Leioa, Spain

- EOA-01. Magnetotactic Bacteria: Biorobots for Targeted Therapies and Model Nanomagnetic Systems. (Invited)** *J. Alonso*¹, *D. Gandia*², *E. M. Jefremovas*^{1,3}, *L. Gandarias*⁴, *D. Villanueva*⁵, *N. Lete*⁵, *L. Marciano*^{6,5}, *A. García-Prieto*⁹, *I. Orue*⁷, *L. Fernández Barquín*¹, *D. de Cos Elices*⁸, *A. García-Arribas*^{5,2}, *A. Muela*⁴ and *M. Fernandez Gubieda*^{5,2}

1. CITIMAC, Universidad de Cantabria, Santander, Spain;

2. BCMaterials, Leioa, Spain; 3. Institute of Physics,

Johannes Gutenberg University, Mainz, Germany;

4. Inmunología, Microbiología y Parasitología, Universidad del País Vasco (UPV/EHU), Leioa, Spain; 5. Electricidad y

Electrónica, Universidad del País Vasco (UPV/EHU), Leioa, Spain; 6. Física, Universidad de Oviedo, Oviedo, Spain;

7. SGIker Medidas Magnéticas, Universidad del País Vasco (UPV/EHU), Leioa, Spain; 8. Física Aplicada, Universidad

del País Vasco (UPV/EHU), Vitoria, Spain; 9. Física Aplicada, Universidad del País Vasco (UPV/EHU), Bilbao, Spain

[View Digest Text](#)

- EOA-02. Evaluation of alternative magnetic nanoparticle materials for biomedical applications.** *I. Dirba*¹, *C.K. Chandra*¹, *Y. Ablets*¹ and *O. Gutfleisch*¹ 1. Institute of Materials Science, TU Darmstadt, Darmstadt, Germany

[View Digest Text](#)

- EOA-03. Iron oxide nanoparticles as a new tool for treating cardiovascular diseases. (Invited)** *D. Cabrera*², *J. Ranjbar*¹, *A. Santana-Otero*³, *M. Eizadi Sharifabad*², *D. Ortega*³, *N. Telling*² and *A. Harper*¹ 1. School of Medicine, Keele University, Keele, Newcastle under Lyme, United Kingdom; 2. School of Pharmacy and Bioengineering, Guy Hilton Research Centre, Keele University, Stoke on Trent, United Kingdom; 3. Condensed Matter Physics Department, University of Cádiz, Puerto Real, Cadiz, Spain

[View Digest Text](#)

- EOA-04. Withdrawn**

- EOA-05. From thermographical data to 2D temperature maps: how to evaluate performance for magnetic hyperthermia experiments in phantoms.** *D.P. Valdés*^{1,2}, *T.E. Torres*^{1,2}, *A.C. Moreno Maldonado*³, *G. Urretavizcaya*⁴, *M.S. Nadal*¹, *M. Vasquez Mansilla*¹, *R.D. Zysler*^{1,2}, *G.F. Goya*³, *E. De Biasi*^{1,2} and *E. Lima Jr.*¹ 1. Instituto de Nanociencia y Nanotecnología, CNEA-CONICET, Bariloche, Argentina; 2. Instituto Balseiro, UNCuyo, Bariloche, Argentina; 3. Departamento de Física de la Materia Condensada, INMA, UNIZAR, Zaragoza, Spain; 4. Consejo Nacional de Investigaciones Científicas y Técnicas, CNEA, Bariloche, Argentina

[View Digest Text](#)

- EOA-06. Synthetic Antiferromagnet Disk Particles for Hyperthermia.** S. Scheibler¹, I.K. Herrmann³, D. Suess⁴, M. Krupinski⁵, M. Graeser^{6,7} and H.J. Hug^{1,2} *1. Magnetic and Functional Thin Films, Empa, Duebendorf, Switzerland; 2. Physics, University of Basel, Basel, Switzerland; 3. Dep. of Mechanical and Process Eng., ETH Zurich, Zurich, Switzerland; 4. Physics of Functional Materials, University of Vienna, Vienna, Austria; 5. Polish Academia of Science, The Henryk Niewodniczanski Institute of Nuclear Physics, Krakow, Poland; 6. Luebeck University, Luebeck, Germany; 7. Individualized and Cell-based Medical Engineering, Fraunhofer Research Institution, Luebeck, Germany*
[View Digest Text](#)
- EOA-07. Exchange bias, magnetic fluid hyperthermia, and cellular uptake by endothelial cells in core-shell Fe@Fe₃O₄ nanoparticles.** K. Riahi¹, I. Dirba¹, Y. Ablets¹, N. Sultana Shaik², E. Adabifiroozjaei², A. Filatova³, L. Molina-Luna², U. Nuber³ and O. Gutfleisch¹ *1. Functional Materials, Institute of Materials Science, TU Darmstadt, Darmstadt, Germany; 2. Advanced Electron Microscopy Division, Institute of Materials Science, Darmstadt, Germany; 3. Stem Cell and Developmental Biology, TU Darmstadt, Darmstadt, Germany*
[View Digest Text](#)
- EOA-08. MagPure Chip: A Microfluidic Device to Isolate Viable Circulating Tumor Cells.** D. Le Roy¹, L. Descamps^{2,1}, J. Garcia³, D. Barthélémy³, E. Laurenceau⁴, S. Cavassila⁵, L. Payen³ and A. Deman² *1. Institut Lumière Matière, ILM UMR5306, Université Claude Bernard Lyon 1, Villeurbanne, France, Villeurbanne, France; 2. Institut des Nanotechnologies de Lyon, INL UMR5270, Université Claude Bernard Lyon 1, Villeurbanne, France., Villeurbanne, France; 3. Laboratoire de Biochimie et Biologie Moléculaire, CICLY UR3738, Groupe Hospitalier Sud, HCL, Pierre Bénite, France., Pierre Bénite, France; 4. Institut des Nanotechnologies de Lyon, INL UMR5270, Ecole Centrale de Lyon, Ecully, France., Ecully, France; 5. CREATIS, Univ Lyon, INSA Lyon, Université Claude Bernard Lyon 1, UJM Saint Etienne, CNRS, Inserm, CREATIS UMR 5220, U1206, F69621, LYON, France., Lyon, France*
[View Digest Text](#)
- EOA-09. Effect of Substitution in the Heating Efficiency of CuFe₂O₄ Nanoparticles for Magnetic Hyperthermia Application.** G. Phukan¹ and J. Borah¹ *1. Department of Science And Humanities, National Institute of Technology Nagaland, Dimapur, India*
[View Digest Text](#)
- EOA-10. Revealing the relation between the magnetic anisotropy and the heating efficiency of different magnetotactic bacteria species.** D. Gándia¹, L. Gandarias³, L. Marciano², D. Villanueva¹, A.G. Gubieda³, A. Abad³, A. García Prieto⁴, J. Alonso⁵ and M. Fernandez Gubieda¹ *1. Electricidad y Electronica, Universidad Del Pais Vasco, Leioa, Spain; 2. Física, Universidad de Oviedo, Oviedo, Spain; 3. Inmunología, Microbiología y Parasitología, Universidad Del Pais Vasco, Leioa, Spain; 4. Física Aplicada, Universidad Del Pais Vasco, Bilbao, Spain; 5. CITIMAC, Universidad de Cantabria, Santander, Spain*
[View Digest Text](#)

- EOA-11. Ultrafast Heating Rate of Ultrasmall Gold-coated Iron Oxide Magnetic Nanoparticles by Ferromagnetic Resonance.** *L. Tonthat*¹, *A. Kuwahata*¹, *T. Ogawa*¹ and *S. Yabukami*¹ *1. Tohoku University, Sendai, Japan*
[View Digest Text](#)
- EOA-12. Ferromagnetic resonance heating of magnetic nanoparticles Resovist for biomedical applications.** *W. Szawro*^{1,2}, *A. Kuwahata*^{1,3}, *T. Kagami*¹ and *S. Yabukami*¹
1. Tohoku University, Sendai, Japan; 2. Faculty of Chemistry, Warsaw University of Technology, Warsaw, Poland; 3. Graduate School of Biomedical Engineering, Tohoku University, Sendai, Japan
[View Digest Text](#)
- EOA-13. Multifunctional nano-probes for cancer diagnosis and therapy based on iron carbide nanoparticles.** *J. Yu*¹
1. College of Materials Science and Engineering, Zhejiang University of Technology, Hangzhou, China
[View Digest Text](#)

ORAL SESSIONS

Session EOB

BIOMAGNETICS II: SENSORS AND DEVICES

Zoe Boekelheide, Co-Chair
Lafayette College, Easton, PA, United States
Sachiko Yamaguchi-Sekino, Co-Chair
National Institute of Occupational Safety and Health,
Japan, Koganei, Japan

- EOB-01. Glioblastoma Cancer Cells Destruction by Mechanical Stimulation Using Magnetic Particles: In vitro Versus In vivo Assays and Investigations in 3D Gels. (Invited)** *C. Naud*^{1,5}, *C. Thébault*¹, *A. Visonà*^{1,2}, *H. Joisten*^{1,4}, *F. Berger*⁵, *M. Carrière*³, *Y. Hou*³, *A. Nicolas*², *B. Dieny*¹ and *R. Morel*¹ *1. CEA-SPINTEC, Grenoble, France; 2. LTM CNRS, Grenoble, France; 3. CEA-SyMMES, Grenoble, France; 4. CEA-LETI, Grenoble, France; 5. INSERM/BrainTechLab, Grenoble, France*
[View Digest Text](#)
- EOB-02. High Gradient Magnetic Separator Design with Hybrid Poles and Increased Efficiency.** *C. Li*¹, *H. King*¹, *A. Toy*¹, *Y. Kanevskiy*¹, *I. Ambriz*¹ and *p. Paiz*¹ *1. R&D Engineering, Dexter Magnetic Technologies Inc., Elk Grove Village, IL, United States*
[View Digest Text](#)
- EOB-03. Factors Affecting Magnetic Particle Imaging: Frequency-Sustained Hysteresis and Dipole-dipole Interactions, Challenges and Solutions. (Invited)** *G. Barrera*¹, *P. Allia*¹ and *P. Tiberto*¹ *1. Advance Materials and Life sciences, INRIM, Torino, Italy*
[View Digest Text](#)

- EOB-04. Development of a human size magnetic particle imaging device for breast cancer sentinel lymph node biopsy.** B. Shi^{1,3}, L. Gai¹, Q. Zhang¹, Y. Kang², Z. Liu^{1,3}, T. Li¹, F. Hou¹, H. Cui¹, Y. He^{1,4} and M. Zhang⁵ 1. School of Information Science and Engineering, Shenyang University of Technology, Shenyang, China; 2. Department of Breast Surgery, Cancer Hospital of Dalian University of Technology, Cancer Hospital of China Medical University, Liaoning Cancer Hospital & Institute, Shenyang, China; 3. Liaoning Magnetic Medical Sensing and Treatment Technological Innovation Center, Liaoning Jiayin Medical Technology, Shenyang, China; 4. Keio University, Yokohama, Japan; 5. First Affiliated Hospital, China Medical University, Shenyang, China
[View Digest Text](#)
- EOB-05. An MRI-Compatible Implantable Magnet Design with Self-Realigning Orientation.** B. Zhang¹, A. Hirka¹ and Y. Kanevskiy¹ 1. Dexter Magnetic Technologies inc., Elk Grove Village, IL, United States
[View Digest Text](#)
- EOB-06. Giant Magnetoresistive Biosensing Platform for Point-of-Care Gene Expression Analysis.** A. de Olazarra¹ and S.X. Wang^{1,2} 1. Electrical Engineering, Stanford University, Stanford, CA, United States; 2. Materials Science and Engineering, Stanford University, Stanford, CA, United States
[View Digest Text](#)
- EOB-07. The Induced Electric Field in the Head Model With Titanium Skull Plate During Transcranial Magnetic Stimulation.** M. Lu¹ and S. Ueno² 1. Lanzhou Jiaotong University, Lanzhou, China; 2. The University of Tokyo, Tokyo, Japan
[View Digest Text](#)
- EOB-08. Development of a Non-magnetic Helical Sensor Drive Mechanism for Magnetocardiography Multipoint Measurement in Animals.** W. Shang¹, M. Fushimi¹, S. Chikaki¹ and M. Sekino¹ 1. Graduate School of Engineering, The University of Tokyo, Tokyo, Japan
[View Digest Text](#)
- EOB-09. Proposal of a Method for Estimating the Position of Ferromagnetic Markers under Magnetization Conditions.** Y. Inoue¹, S. Chikaki¹, M. Fushimi¹, Y. Xiao¹, A. Kuwahata², M. Kusakabe^{3,4} and M. Sekino¹ 1. Graduate School of Engineering, The University of Tokyo, Bunkyo-ku, Japan; 2. Graduate School of Engineering, Tohoku University, Aoba-ku, Japan; 3. Graduate School of Agricultural and Life Sciences, Research Center for Food Safety, The University of Tokyo, Bunkyo-ku, Japan; 4. Matrix Cell Research Institute Inc., Ushiku, Japan
[View Digest Text](#)
- EOB-10. Reconstruction of the Electrical Properties in Human Bodies Based on the Estimation of the Unmeasurable Magnetic Fields.** N. Eda¹ and T. Nara¹ 1. The Graduate School of Information Science and Technology, The University of Tokyo, Tokyo, Japan
[View Digest Text](#)

- EOB-11. Dipolar Interaction Effect on Harmonics in Liner Chain Magnetic Nanoparticles.** *H. Zhang¹, Y. Sun¹, S. Yamamura¹, T. Sasayama¹ and T. Yoshida¹* *1. Kyushu University, Fukuoka, Japan*
[View Digest Text](#)
- EOB-12. Low-Concentration Magnetic Particle Spectroscopy Using Gradiometric Receive Coil-Coupled Magnetoresistive Sensor.** *S. Trisnanto¹, T. Kasajima², T. Shibuya² and Y. Takemura¹* *1. Electrical and Computer Engineering, Yokohama National University, Yokohama, Japan; 2. Technology and Intellectual Property HQ, TDK Corporation, Tokyo, Japan*
[View Digest Text](#)
- EOB-13. Optimization Of Receive Coil Shape For Highly Sensitive MRI In Deep Local Region.** *M. Takahashi¹, M. Fushimi², M. Sekino², S. Yabukami¹ and A. Kuwahata¹* *1. Tohoku University, Sendai, Japan; 2. The University of Tokyo, Tokyo, Japan*
[View Digest Text](#)
- EOB-14. Wireless Magnetolectric Neural Interfaces.** *E. Zhang¹, M. Abdel-Mottaleb², J. Shulgach³, M. Alberteris Campos¹, M. Murphy³, B. Navarrete¹, S. Chen^{1,4}, V. Andre², M. Shotbolt², D. Griffin³, D. Weber³, P. Liang⁵ and S. Khizroev¹* *1. Electrical and Computer Engineering, University of Miami, Coral Gables, FL, United States; 2. Biomedical Engineering, University of Miami, Coral Gables, FL, United States; 3. Mechanical Engineering, Carnegie Mellon University, Pittsburgh, PA, United States; 4. Chemical, Environmental, and Materials Engineering, University of Miami, Coral Gables, FL, United States; 5. Cellular Nanomed Inc, Irvine, CA, United States*
[View Digest Text](#)

POSTER SESSION

Session EPA BIOMEDICAL DIAGNOSTICS AND IMAGING (Poster Session)

David Cabrera, Co-Chair
 Keele University, Stoke on Trent, United Kingdom
 Akihiro Kuwahata, Co-Chair
 Tohoku University, Miyagi, Japan

- EPA-01. Evaluation of Superconducting Self-Shield and Zero Boil-Off Magnetoencephalogram Systems Using Dry Phantom.** *K. Tanaka¹, A. Tsukahara¹, Y. Miyanaga², K. Yokoyama², T. Yamaguchi², S. Tsunematsu², T. Kato² and Y. Matsubara²* *1. School of Science and Engineering, Tokyo Denki University, Hatoyama, Japan; 2. Sumitomo Heavy Industries, Ltd., Yokosuka, Japan*
[View Digest Text](#)

- EPA-02. High Efficiency Magnetic Induction System Development with Synchronous MPI Imaging.** B. Shi¹, X. Zhang¹, Y. Zou¹, Z. Liu¹, Y. Lin¹, P. Huang¹ and Y. Takashi²
1. Shenyang University of Technology, Shenyang City in Liaoning Province, China; 2. Kyushu University, Fukuoka, Japan
[View Digest Text](#)
- EPA-03. Estimation of Q-factor of Composite Heating Element for Magnetic Hyperthermia.** T. Takura¹, H. Sunaguchi¹ and K. Takahashi¹
1. Tohoku Institute of Technology, Sendai, Japan
[View Digest Text](#)
- EPA-04. Drug targeting system for guiding? magnetic nanoparticles toward a blood vessel wall using an array of permanent magnets.** B. Son¹ and J. Yoon¹
1. School of Integrated Technology, Gwangju Institute of Science and Technology (GIST), Gwangju, The Republic of Korea
[View Digest Text](#)
- EPA-05. Effect of the static magnetic field bias on the dynamic hysteresis loop of a magnetic nanoparticle suspension.** R. Onodera¹, E. Kita^{1,2}, T. Kuroiwa³ and H. Yanagihara²
1. National Institute of Technology, Ibaraki College, Hitachinaka, Japan; 2. Department of Applied Physics, University of Tsukuba, Tsukuba, Japan; 3. Graduate school of Science and Engineering, University of Tsukuba, Tsukuba, Japan
[View Digest Text](#)
- EPA-06. Magnetic Resonance Imaging Using a Magnetoresistive Sensor with a Flux Transformer.** D. Oyama¹, Y. Adachi¹ and N. Tsuyuguchi^{2,3}
1. Applied Electronics Laboratory, Kanazawa Institute of Technology, Kanazawa, Japan; 2. Department of Neurosurgery, Kindai University, Osakasayama, Japan; 3. Neurosurgery, Naniwaikuno Hospital, Osaka, Japan
[View Digest Text](#)
- EPA-07. Magnetic nanowires versus nano/micro-particles for cancer cell destruction by magneto-mechanical actuation.** H. Chiriac¹, A. Minuti^{1,2}, C. Stavila^{1,2} and N. Lupu¹
1. National Institute of Research and Development for Technical Physics, Iasi, Romania; 2. Faculty of Physics, Alexandru Ioan Cuza University of Iasi, Iasi, Romania
[View Digest Text](#)
- EPA-08. Dynamics of magnetization under spin-lock pulse with T_1 relaxation.** H. Ueda¹ and Y. Ito¹
1. Department of Electrical Engineering, Kyoto University, Kyoto, Japan
[View Digest Text](#)
- EPA-09. Magnetic Hyperthermia Properties of Green Synthesized $\text{CoFe}_2\text{O}_4/\text{ZnS}$ Nanocomposites Utilizing *Moringa Oleifera* Extract.** D.A. Larasati¹, D.L. Puspitarum¹, M.Y. Darmawan¹, N.I. Istiqomah¹, J. Partini¹, D. Oshima², T. Kato² and E. Suharyadi¹
1. Physics, Universitas Gadjah Mada, Yogyakarta, Indonesia; 2. Nagoya University, Nagoya, Japan
[View Digest Text](#)

- EPA-10. Dynamic magnetization and specific loss powers of commercial magnetic nanoparticles.** H. Obana¹, S. Ota², S. Takeuchi¹, S. Trisnanto¹ and Y. Takemura¹ *1. Electrical and Computer Engineering, Yokohama National University, Yokohama, Japan; 2. Electrical and Electronic Engineering, Shizuoka University, Hamamatsu, Japan*
[View Digest Text](#)
- EPA-11. Detection of Magnetic Nanoparticles Using Drive and Receive Coils for Head-Size Magnetic Particle Imaging.** H. Ahn¹, K. Suzuki¹, S. Trisnanto¹, S. Ota², T. Yoshida³ and Y. Takemura¹ *1. Electrical and Computer Engineering, Yokohama National University, Yokohama, Japan; 2. Electrical and Electronic Engineering, Shizuoka University, Hamamatsu, Japan; 3. Electrical Engineering, Kyushu University, Fukuoka, Japan*
[View Digest Text](#)
- EPA-12. Formulation and in-vitro evaluations of hedgehog pathway inhibitor drugs loaded polymer coated magnetic nanocarriers for hyperthermia and targeting Hep 1-6 liver cancer cells.** G.C. Hermosa¹, L. Fang², C. Liao¹, C. Chang³ and A.A. Sun^{1,4} *1. Department of Chemical Engineering & Materials Science, Yuan Ze University, Taoyuan, Taiwan; 2. Department of Mechanical and Industrial Engineering, Vanung University, Taoyuan, Taiwan; 3. Department of Medical Research, Far Eastern Memorial Hospital, New Taipei City, Taiwan; 4. Graduate School of Biotechnology and Bioengineering, Yuan Ze University, Taoyuan, Taiwan*
[View Digest Text](#)
- EPA-13. The Pulse Magnetic Field Controls the TNF- α of the BALB_C Mice Injected with LPS.** S. Kim¹, B. Lee¹, J. Moon¹, M. Ahn¹ and H. Lee¹ *1. Sangji University, Wonju, The Republic of Korea*
[View Digest Text](#)

POSTER SESSION

Session EPB
BIOMEDICAL SENSORS AND DEVICES
(Poster Session)

Javier Alonso, Co-Chair
University of Cantabria, Santander, Spain

Ravi Hadimani, Co-Chair
Virginia Commonwealth University, Richmond, VA, United States

- EPB-01. Investigation of EEG Functional Connectivity Relationship with TMS Response in Mild Traumatic Brain Injury Patients.** M.Z. Hussain³, A. Jamil¹, L. Franke² and R.L. Hadimani^{3,1} *1. Psychiatry, Harvard University, Boston, MA, United States; 2. Physical Medicine and Rehabilitation, Virginia Commonwealth University, Richmond, VA, United States; 3. Mechanical and Nuclear Engineering, Virginia Commonwealth University, Richmond, VA, United States*
[View Digest Text](#)

- EPB-02. Biocompatible Nanoparticles for DDS with Field-Dependent Radical Pair System.** *H. Nakagawa*¹, *M. Fujimoto*² and *T. Tadokoro*¹ *1. Department of Electrical and Electronic Engineering, Tokyo Denki University, Tokyo, Japan; 2. Department of Health and Nutrition, University of Human Arts and Sciences, Saitama, Japan*
[View Digest Text](#)
- EPB-03. An ELF Magnetic Control Study of Metamorphic Qualities in T₄-Administrated Axolotls (*Ambystoma mexicanum*).** *H. Nakagawa*¹, *M. Fujimoto*² and *T. Tadokoro*¹ *1. Department of Electrical and Electronic Engineering, Tokyo Denki University, Tokyo, Japan; 2. Department of Health and Nutrition, University of Human Arts and Sciences, Tokyo, Japan*
[View Digest Text](#)
- EPB-04. Shape Observation by Local illumination Using Reflected Light from Magnetically Controlled Guanine Crystal Platelet.** *H. Asada*¹, *E. Muneyama*¹, *M. Kurahashi*¹, *K. Takeuchi*¹ and *M. Iwasaka*² *1. Yamaguchi University, Ube, Japan; 2. Hiroshima University, Higashi-Hiroshima, Japan*
[View Digest Text](#)
- EPB-05. Human Error Verification During ELF Stimuli: Retinal Receptivity of ELF-Inducing Phosphenes.** *H. Nakagawa*¹ and *S. Ueno*² *1. Department of Electrical and Electronic Engineering, Tokyo Denki University, Tokyo, Japan; 2. Department of Applied Quantum Physics, Kyushu University, Fukuoka, Japan*
[View Digest Text](#)
- EPB-06. Calibration of AC Hysteresis Magnetometers for Magnetic Fluids.** *Z. Boekelheide*¹, *J. Santos*¹ and *H. Steinthal*¹ *1. Physics, Lafayette College, Easton, PA, United States*
[View Digest Text](#)
- EPB-07. Hybrid Transcranial Magnetic Stimulation and Deep Brain Stimulation in the Presence of an Implantable Pulse Generator.** *A. Mhaskar*^{1,2}, *M. Tashli*¹, *K. Holloway*^{4,5} and *R.L. Hadimani*^{1,3} *1. Mechanical and Nuclear Engineering, Virginia Commonwealth University, Richmond, VA, United States; 2. Center for Medical Sciences, Mills E. Godwin High School, Richmond, VA, United States; 3. Department of Biomedical Engineering, Virginia Commonwealth University, Richmond, VA, United States; 4. Hunter Holmes McGuire Veterans Affairs Medical Center, McGuire Research Institute, Richmond, VA, United States; 5. Department of Neurosurgery, Virginia Commonwealth University, Richmond, VA, United States*
[View Digest Text](#)
- EPB-08. Human Skull Implantable Wireless Power Transfer System.** *Ú.d. Resende*¹, *M.D. Almeida*¹ and *I.V. Soares*² *1. Electrical Engineering, CEFET-MG, Belo Horizonte, Bouvet Island; 2. Institut d'Electronique et de Telecommunications de Rennes, Université de Rennes 1, Rennes, France*
[View Digest Text](#)

- EPB-09. Effects of Magnetic Field and Magnetic Force on Proliferation and Differentiation of Osteoblast cells.** *S. Yamaguchi-Sekino*¹ and *M. Sekino*² 1. *Work Environment Research Group, National Institute of Occupational Safety and Health, Japan, Kawasaki, Japan*; 2. *Department of Bioengineering, School of Engineering, The University of Tokyo, Tokyo, Japan*
[View Digest Text](#)
- EPB-10. Investigation of Resting Motor Threshold Variability in Schizophrenia Patients during Transcranial Magnetic Stimulation.** *C.J. Lewis*¹, *E. Cheng*¹, *U.M. Mehta*³, *A.K. Pandurangi*⁴ and *R.L. Hadimani*^{2,5} 1. *Biomedical Engineering, Virginia Commonwealth University, Richmond, VA, United States*; 2. *Mechanical and Nuclear Engineering, Virginia Commonwealth University, Richmond, VA, United States*; 3. *Psychiatry, National Institute of Mental Health & Neurosciences, Bangalore, India*; 4. *Psychiatry, Virginia Commonwealth University, Richmond, VA, United States*; 5. *Psychiatry, Harvard Medical School, Boston, MA, United States*
[View Digest Text](#)
- EPB-11. Dry-type phantom emulating quadrupole-like magnetic field distribution for evaluation of magnetoneurography.** *Y. Adachi*¹, *D. Oyama*¹, *G. Uehara*¹ and *S. Kawabata*² 1. *Applied Electronics Laboratory, Kanazawa Institute of Technology, Kanazawa, Japan*; 2. *Tokyo Medical and Dental University, Tokyo, Japan*
[View Digest Text](#)
- EPB-12. Withdrawn**
- EPB-13. Simplified Magnetic Flux Density Measurement for Local Resolution Analysis of Transcranial Magnetic Stimulation.** *T. Torii*², *H. Sakamoto*¹ and *A. Sato*² 1. *Department of Clinical Engineering, Komatsu University, Komatsu, Japan*; 2. *Department of Human Information Engineering, Tokai University, Kumamoto, Japan*
[View Digest Text](#)

ORAL SESSIONS

Session FOA

ANALYTICAL, SEMI-ANALYTICAL AND NUMERICAL MODELLING FOR DESIGN AND ANALYSIS OF ELECTRICAL MACHINES I

Yacine Amara, Co-Chair

Université Le Havre Normandie, Le Havre, France

Abdelmounaim Tounzi, Co-Chair

Univ. Lille, Arts et Metiers Institute of Technology, Villeneuve d'Ascq, France

- FOA-01. Analytical Modelling of Cogging Torque Based on Harmonic Action.** *L. Dai*¹, *W. Zhang*², *J. Gao*¹ and *S. Huang*¹ 1. *College of Electrical and Information Engineering, Hunan University, Changsha, China*; 2. *Changsha University, Changsha, China*
[View Digest Text](#)

FOA-02. Analytical Model for Electromagnetic Field in Permanent Magnet Synchronous Motor Considering Stator Slotting and Rotor Eccentricity. *Q. Wei¹, Y.W. Li¹, J.Z. Shuai¹ and D. Zeng²* 1. *College of Power and Energy Engineering, Harbin Engineering University, Harbin, China;* 2. *College of Intelligent Systems Science and Engineering, Harbin Engineering University, Harbin, China*
[View Digest Text](#)

FOA-03. Experimental Validation of a Mesh-to-Mesh Magnetic Force Projection for e-NVH Simulation. *R. Pile¹, J. Le Besnerais², M. Glessier², G. Parent¹ and Y. Le Menach³* 1. *LSEE, Université d'Artois, Béthune, France;* 2. *EOMYS Engineering, Villeneuve d'Ascq, France;* 3. *L2EP, Université de Lille, Lille, France*
[View Digest Text](#)

FOA-04. Approximation of nonlinear properties of soft-magnetic materials with Bézier curves. *E. Rahmanović¹ and M. Petrun¹* 1. *UM FERl, Maribor, Slovenia*
[View Digest Text](#)

FOA-05. 3-D Stray Loss Evaluation of Structural Component under Harmonic and DC-Biased Magnetization by Harmonic-Balanced Method. *S. Gao¹, X. Zhao¹, L. Liu³, K. Muramatsu², Y. Gao⁴ and B. Forghani⁵* 1. *North China Electric Power University, Baoding, China;* 2. *Saga University, Saga, Japan;* 3. *Hebei Provincial Key Laboratory of Electromagnetic and Structural Performance of Power Transmission and Transformation Equipment, Baoding, China;* 4. *Oita University, Oita, Japan;* 5. *A Siemens Business, Montreal, QC, Canada*
[View Digest Text](#)

FOA-06. High-Speed Iron Loss Calculation of Permanent Magnet Synchronous Motor Combining Reluctance Network Analysis and One-Dimensional Magnetic Circuit Models Considering Dynamic Hysteresis Behavior. *Y. Hane¹ and K. Nakamura¹* 1. *Electrical Engineering, Tohoku University, Sendai, Japan*
[View Digest Text](#)

FOA-07. Comparison of the Finite Element Method and High-Order Isogeometric Analysis for Modeling Magnetic Vector Hysteresis. *B. Daniels¹, M. Curti¹, T. Overboom² and E. Lomonova¹* 1. *Electrical Engineering, Eindhoven University of Technology, Eindhoven, Netherlands;* 2. *Royal SMIT Transformers (SGB-SMIT Group), Nijmegen, Netherlands*
[View Digest Text](#)

FOA-08. Equivalent 2D FEA Modeling Method for High-speed Electrical Machines with Litz Winding Considering Transposition Influence. *H. Jiang¹, J. Zhang¹, Z. Zhang¹ and G. Hu¹* 1. *Nanjing University of Aeronautics and Astronautics, Nanjing, China*
[View Digest Text](#)

FOA-09. Development and Experimental Verification of Magnetic Loss Models for High-Speed Electric Drives. *R. Zeinali¹, D. Krop¹ and E. Lomonova¹* 1. *Electrical Engineering, Eindhoven University of Technology, Eindhoven, Netherlands*
[View Digest Text](#)

- FOA-10. Novel Stator Slot Opening to Reduce Electrical Machine Bearing Currents.** *D. De Gaetano*¹, *W. Zhu*¹, *X. Sun*¹, *X. Chen*¹, *A. Griffo*¹ and *G.W. Jewell*¹ *1. Electronic and Electrical Engineering, The University of Sheffield, Sheffield, United Kingdom*
[View Digest Text](#)
- FOA-11. Stator Optimization for a Novel Magnetic Levitation Actuator.** *G. Zuidema*¹, *D. Krop*¹ and *E. Lomonova*¹
1. Electrical Engineering, Eindhoven University of Technology, Eindhoven, Netherlands
[View Digest Text](#)
- FOA-12. Topology Optimization of Magnetic Actuator based on Reluctance Network Modeling and Adjoint Variable Method.** *M. Yin*¹, *M. Naidjate*², *N. Bracikowski*¹, *A. Pierquin*¹ and *D. Trichet*¹ *1. Nantes Université, Saint Nazaire, France;*
2. École Polytechnique Montréal, Montréal, QC, Canada
[View Digest Text](#)
- FOA-13. Semi-analytical modeling for linear motors with conductive media in high-dynamic applications.** *A. Desikan*¹, *D. Krop*¹, *B. De Bruyn*¹ and *E. Lomonova*¹
1. Electrical Engineering, Eindhoven University of Technology, Eindhoven, Netherlands
[View Digest Text](#)
- FOA-14. Dynamic Analysis of Eddy Current Damper for Multiple-Degree-of-Freedom Vibration.** *Y. Umekawa*¹, *A. Heya*¹ and *T. Inoue*¹ *1. Mechanical Systems Engineering, Nagoya University, Nagoya, Japan*
[View Digest Text](#)
- FOA-15. Analysis of a Magnetic Damping Structure for Ball Balancer.** *S. Fukuda*¹, *A. Heya*¹ and *T. Inoue*¹ *1. Mechanical systems engineering, Nagoya University, Nagoya, Japan*
[View Digest Text](#)
- FOA-16. Analysis of the amount of flux variation on the HTS surface by the oscillation of HTS magnetic bearing rotor.** *R. Taniguchi*¹, *S. Ishida*¹, *K. Yagi*¹ and *S. Ohashi*¹
1. Department of Electrical and Electronic Engineering, Kansai University, Suita, Japan
[View Digest Text](#)

Session FPA
ANALYTICAL, SEMI-ANALYTICAL AND
NUMERICAL MODELLING FOR DESIGN AND
ANALYSIS OF ELECTRICAL MACHINES II
(Poster Session)

Shuangxia Niu, Co-Chair
The Hong Kong Polytechnic University, Kowloon, Hong Kong
Georges Barakat, Co-Chair
University of Le Havre, Le Havre, France

- FPA-01. Performance Prediction of a FMaSynRM Considering MTPA, FW, and MTPV Operating Conditions Using Open-Source FEA.** *C. Di^{1,2}, X. Bao¹ and W. Jiang²* 1. *Hefei University of Technology, Hefei, China;* 2. *Luoyang Bearing Research Institute Co., Ltd., Luoyang, China*
[View Digest Text](#)
- FPA-02. Design, Analysis, and Experimental Verification of a PM-Based Hybrid Brake System for Personal e-Mobility Applications.** *G. Choi¹, J. Park¹ and G. Jang¹* 1. *Inha University, Incheon, The Republic of Korea*
[View Digest Text](#)
- FPA-03. Electromagnetic Analysis Technique and Experimental Study of Permanent Magnet Synchronous Machine Considering Axial Leakage Flux using Subdomain Method.** *K. Shin¹, J. Lee¹, S. Sung² and J. Choi³* 1. *Chonnam National University, Yeosu, The Republic of Korea;* 2. *Korea Research Institute of Science and Ocean Engineering, Daejeon, The Republic of Korea;* 3. *Chungnam National University, Daejeon, The Republic of Korea*
[View Digest Text](#)
- FPA-04. Electromagnetic Performance Analysis of a Bearingless Permanent Magnet Synchronous Motor by Model Order Reduction.** *K. Xu¹, Y. Guo¹, G. Lei¹, J. Zhu² and X. Sun³* 1. *Faculty of Engineering and Information Technology, University of Technology Sydney, Sydney, NSW, Australia;* 2. *School of Electrical and Information Engineering, The University of Sydney, Sydney, NSW, Australia;* 3. *Automotive Engineering Research Institute, Jiangsu University, Zhenjing, China*
[View Digest Text](#)
- FPA-05. Analytical Analysis of a Novel Axial-Radial Permanent Magnet Eddy-Current Coupling With Mechanical Magnetic Adjuster.** *Z. Li¹, F. Bian¹ and X. Chai¹* 1. *School of Electronic and Information, Zhongyuan University of Technology, Zhengzhou, China*
[View Digest Text](#)
- FPA-06. Study of Levitation Characteristic against Vertical Displacement at Minimum Levitation Velocity in the Electrodynamic Suspension System with Damper Coils.** *S. Higashiike¹, R. Yamamoto¹ and S. Ohashi¹* 1. *Electrical and Electronic Engineering, Kansai University, Suita, Japan*
[View Digest Text](#)

- FPA-07. Investigation of the Excess Loss of the Grain-Oriented Steel Sheets in A High-Frequency Range Considering Skin Effect.** *L. Chen¹, X. Wen¹, T. Ben², P. Wei¹ and X. Zhang³*
1. College of Electrical Engineering and New Energy, China Three Gorges University, Yichang, China; 2. Hubei Provincial Research Center on Microgrid Engineering Technology, China Three Gorges University, Yichang, China; 3. State Key Laboratory of Reliability and Intelligence of Electrical Equipment, Hebei University of Technology, Tianjin, China
[View Digest Text](#)
- FPA-08. Calculation of Iron Loss in Permanent Magnet Synchronous Motors Based on PSO-RNN.** *K. Xu¹, Y. Guo¹, G. Lei¹, L. Liu¹ and J. Zhu²*
1. Faculty of Engineering and Information Technology, University of Technology Sydney, Sydney, NSW, Australia; 2. School of Electrical and Information Engineering, The University of Sydney, Sydney, NSW, Australia
[View Digest Text](#)
- FPA-09. Analytical Calculation and Experiment of 3-D Electromagnetic Force of Permanent Magnet Electrodynamic Suspension System.** *F. Bu¹, J. Xu¹ and J. Chen¹*
1. College of National Key Laboratory of Science and Technology on Vessel Intergrated Power System, Naval University of Engineering, Wuhan, China
[View Digest Text](#)
- FPA-10. Analysis and Modeling of Field Distributions in Tooth-Yoke Junction Close Slot Grain-Oriented Electrical Steel Electrical Machine.** *Z. Li¹, Y. Ma¹, W. Li^{1,2}, Y. Li¹ and R. Pei¹*
1. Department of Electrical Engineering, Shenyang University of Technology, Shenyang, China; 2. School of Electrical and Mechanical Engineering (Engineering Training Centre), XuChang University, Xuchang, China
[View Digest Text](#)
- FPA-11. Multi-Objective Tradeoff Designs of Rotor Flux-Barrier in a Multi-Layered IPM Machines for EV Applications.** *Y. Hu¹ and S. Zhu¹*
1. Nanjing Engineering Institute of Aircraft Systems, Nanjing, China
[View Digest Text](#)
- FPA-12. Withdrawn**
- FPA-13. Multiphysics modeling and optimization of PMSM for high speed operation.** *T.A. Marcand¹, C. Bonnard¹, S. Mezani¹ and N. Takorabet¹*
1. Laboratoire GREEN, Université de Lorraine, Nancy, France
[View Digest Text](#)
- FPA-14. Withdrawn**
- FPA-15. Investigation of Electromagnetic Formulations for Efficient Analysis of MFTs.** *S. Pourkeivannour¹, M. Curti¹ and E. Lomonova¹*
1. Department of Electrical Engineering, Eindhoven University of Technology, Eindhoven, Netherlands
[View Digest Text](#)

- FPA-16. Development of a Machine Learning-based Design Platform for Permanent-Magnet Synchronous Motor Toward Simulation Free.** *L. Lin¹ and M. Hsieh¹ 1. National Cheng Kung University, Tainan, Taiwan*
[View Digest Text](#)
- FPA-17. Comparative Study of Superconducting Machines according to Shielding and Electromagnetic Structures based on Analytical Method.** *K. Shin¹, J. Lee¹, J. Choi², S. Sung³ and H. Cho² 1. Chonnam National University, Yeosu, The Republic of Korea; 2. Chungnam National University, Daejeon, The Republic of Korea; 3. Korea Research Institute of Science and Ocean Engineering, Daejeon, The Republic of Korea*
[View Digest Text](#)

ORAL SESSIONS

Session GOA

PERMANENT MAGNET MACHINES I

Narayan Kar, Chair

University of Windsor, Windsor, ON, Canada

- GOA-01. Axial Force Negative Stiffness in Axial-Flux Electric Machines. (Invited)** *W. Soong¹, E. Roshandel², Z. Cao², A. Mahmoudi² and S. Kahourzade³ 1. School of Electrical and Mechanical Engineering, University of Adelaide, Adelaide, SA, Australia; 2. College of Science & Engineering, Flinders University, Adelaide, SA, Australia; 3. STEM, University of South Australia, Adelaide, SA, Australia*
[View Digest Text](#)
- GOA-02. An Inductance Testing Method of Dual Three-Phase Permanent Magnet Synchronous Machines Using Equivalent Electromagnetic Field Analysis.** *D. Zeng¹, Q. Zhang¹, J. Zou², Y. Xu² and H. Pan¹ 1. Harbin Engineering University, Harbin, China; 2. Harbin Institute of Technology, Harbin, China*
[View Digest Text](#)
- GOA-03. Study on Injection Molding IPMSM Using Sm-Fe-N Bonded Magnet.** *Y. Yoshida¹, R. Yoshida², M. Abe², K. Takeda¹, S. Tada², M. Yamamoto² and K. Tajima¹ 1. Graduate School of Engineering Science, Akita University, Akita, Japan; 2. Magnet Manufacturing Dept. Functional Materials Business Unit, Nichia corporation, Akita, Japan*
[View Digest Text](#)
- GOA-04. Effect of Reaction Field Caused by Eddy Currents and Hysteresis Phenomenon in Laminated Cores on Torque Characteristics of Interior Permanent Magnet Synchronous Motors.** *K. Yamazaki¹ and Y. Nakatani¹ 1. Electrical and Electric Engineering, Chiba Institute of Technology, Narashino, Japan*
[View Digest Text](#)

- GOA-05. Complex shaped magnets for an efficient use of rare earths in synchro-reluctant machines.** B. Chareyron², A. Nasr², O. Guyon², S. Desrousseaux¹ and G. Delette¹
1. DTNM, CEA-LITEN, Grenoble, France; 2. IFPEN, Rueil-Malmaison, France
[View Digest Text](#)

POSTER SESSION

Session GPA
PERMANENT MAGNET MACHINES II
(Poster Session)

Yukihiro Yoshida, Chair
Akita University, Akita, Japan

- GPA-01. Analysis and Monitoring Method for Inter-Turn Short Circuit Fault for PMSM.** C. Liu¹, J. Zou¹, Y. Xu¹ and S. Li¹
1. Harbin Institute of Technology, Harbin, China
[View Digest Text](#)
- GPA-02. Investigation of Fault-Tolerant Performance and Inductance in a Modular Permanent Magnet In-Wheel Motor.** Y. Tang¹, F. Chai², Y. Xie¹ and W. Cai¹ *1. Electrical Engineering, Harbin University of Science and Technology, Harbin, China; 2. Electrical Engineering, Harbin Institute of Technology, Harbin, China*
[View Digest Text](#)
- GPA-03. A Novel Rotor-Step Skewing Method for Vibration Mitigation in Interior Permanent Magnet Synchronous Motor.** D. Li¹, Y. Xie¹, F. Liu¹, W. Cai¹ and F. Yang¹ *1. Harbin University of Science and Technology, Harbin, China*
[View Digest Text](#)
- GPA-04. A Novel Fault Tolerant Structure of Open Circuit Fault in Arc Linear Flux Switching Permanent Magnet Motors Based on Redundant Winding.** F. Liu¹, Y. Xie¹ and W. Cai¹
1. Harbin University of Science and Technology, Harbin, China
[View Digest Text](#)
- GPA-05. Magnetic Property Investigation of High-Tension Electrical Steel Sheet Applied to Interior Permanent Magnet Synchronous Motors Considering Multiaxial Stress Caused by Centrifugal Force.** K. Yamazaki¹, K. Ishikawa¹, H. Ohguchi², S. Imamori³ and M. Shuto³
1. Chiba Institute of Technology, Narashino, Japan; 2. Electrical and Electric Engineering, Tokai University, Hiratsuka, Japan; 3. Fuji Electric Co., Ltd., Hino, Japan
[View Digest Text](#)
- GPA-06. Optimal Design of Outer Rotor Permanent Magnet Synchronous Motor Considering Electromagnetic Loss and Torque Characteristics.** H. Kim¹, J. Kang¹, J. Kim¹, J. Lee¹ and S. Won² *1. Hanyang university, Seoul, The Republic of Korea; 2. Dongyang Mirae University, Seoul, The Republic of Korea*
[View Digest Text](#)

- GPA-07. A Novel Partitioned-Stator Flux Reversal Machine with Two Sets of Permanent Magnet.** *K. Yang¹, F. Zhao¹, J. Yu¹ and Y. Wang¹* *1. Harbin Institute of Technology (Shenzhen), Shenzhen, China*
[View Digest Text](#)
- GPA-08. Analytical Calculation and Low-Order Component Optimization of Axial Electromagnetic Force for an Axial Flux Motor.** *F. Zhao¹, Z. Shao¹ and H. Fan²* *1. Harbin Institute of Technology (Shenzhen), Shenzhen, China; 2. Shenzhen MSU-BIT University, Shenzhen, China*
[View Digest Text](#)
- GPA-09. Design Optimization Using Asymmetric Rotor in IPMSM for Torque Ripple Reduction Considering Forward and Reverse Directions.** *J. Park^{1,2}, J. Kim¹, S. Park^{1,3}, K. Kim¹, M. Sung⁴ and M. Lim¹* *1. Department of Automotive Engineering, Hanyang University, Seoul, The Republic of Korea; 2. Robot Business Team, Samsung Electronics Co., Ltd, Suwan-si, The Republic of Korea; 3. R&D Division, Hyundai Motor Company, Hwaseong-si, The Republic of Korea; 4. Department of Automotive Engineering (Automotive-Computer Convergence), Hanyang University, Seoul, The Republic of Korea*
[View Digest Text](#)
- GPA-10. Comparative Study of Mechanical and Electrical Characteristics on High-Strength Steel and Conventional Steel for EV Traction High-Speed Multilayer IPMSM Using Rare-Earth Free PM.** *K. Kim¹, Y. Jung³, J. Park^{2,1} and M. Lim¹* *1. Hanyang University, Seoul, The Republic of Korea; 2. Samsung Electronics, Suwan, The Republic of Korea; 3. Hyundai Motor Company, Hwaseong, The Republic of Korea*
[View Digest Text](#)
- GPA-11. Effects of High-Pressure Environment on Deep-sea Fe-Co-V Alloys Permanent Magnet Synchronous Motors.** *G. Yu¹, J. Huang¹, Y. Xu¹, L. Xiao¹ and J. Zou¹* *1. Harbin Institute of Technology, Harbin, China*
[View Digest Text](#)
- GPA-12. Withdrawn**
- GPA-13. A Novel Flux Concentrated Stator Consequent-Pole Permanent Magnet Machine with Non-Uniform Stator Modulation Teeth.** *Y. Li¹, Q. Zhou¹, S. Ding¹, J. Hang¹ and W. Li¹* *1. School of Electrical Engineering and Automation, Anhui University, Hefei, China*
[View Digest Text](#)
- GPA-14. Space Vector Pulse Width Modulation for a Five-Leg Inverter to Control a Dual Three-Phase Electric Machine.** *W. Wang^{1,2}, Y. Chen^{1,2}, Y. Liu^{1,2}, R. Huang^{1,2}, B. Zhang^{1,2}, F. Yu^{1,3} and C. Liu^{1,2}* *1. School of Energy and Environment, City University of Hong Kong, Hong Kong SAR, China; 2. Shenzhen Research Institute, City University of Hong Kong, Shenzhen, China; 3. School of Electrical Engineering, Nantong University, Nantong, China*
[View Digest Text](#)

- GPA-15. A Novel Six-Phase Out Rotor Transverse Flux Reversal PM Motor for Aviation Propulsion System.** *B. Zhang*^{1,2}, *K. Feng*^{1,2}, *W. Wang*^{1,2}, *H. Wen*^{1,2}, *Y. Chen*^{1,2}, *T. Wang*^{1,2} and *C. Liu*^{1,2} *1. School of Energy and Environment, City University of Hong Kong, Hong Kong; 2. City University of Hong Kong Shenzhen Research Institute, Shen Zhen, China*
[View Digest Text](#)
- GPA-16. A Low-Cost Segment Method to Reduce PM Eddy-Current Loss in Axial Flux PM Wheel Motor.** *C. Wang*¹, *Y. Liu*², *J. Huang*² and *Z. Zhang*³ *1. School of Electrical Engineering, Anhui Polytechnic University, Wuhu, China; 2. Anhui Polytechnic University, Wuhu, China; 3. Nanjing University of Aeronautics and Astronautics, Nanjing, China*
[View Digest Text](#)
- GPA-17. A Novel Winding Connection Sequence of Dual Three-Phase Series-End Winding PMSM Drive for Speed Range Extension.** *Z. Dong*^{1,2}, *Y. Liu*^{1,2}, *H. Wen*^{1,2}, *K. Feng*^{1,2}, *F. Yu*^{1,3} and *C. Liu*^{1,2} *1. School of Energy and Environment, City University of Hong Kong, Hong Kong; 2. Shenzhen Research Institute, City University of Hong Kong, Shenzhen, China; 3. School of Electrical Engineering, Nantong University, Nantong, China*
[View Digest Text](#)
- GPA-18. The Analytical Calculation and Measurements of the Magnetic Force Between Permanent Magnet and Rotor Yoke of a Large-Scale Permanent Magnet Synchronous Generator.** *H. Shin*¹, *M. Lim*² and *J. Choi*¹ *1. Chung Nam National University, Daejeon, The Republic of Korea; 2. Unison, Daejeon, The Republic of Korea*
[View Digest Text](#)

POSTER SESSION

Session GPB

PERMANENT MAGNET MACHINES III (Poster Session)

Narayan Kar, Co-Chair

University of Windsor, Windsor, ON, Canada

Reza Nasirizarandi, Co-Chair

University of Windsor, Windsor, ON, Canada

- GPB-01. The Influence of Segmented Modular Stator on the Efficiency of Permanent Magnet Synchronous Motor.** *J. Lee*¹, *J. Choi*², *S. Sung*³, *H. Cho*² and *K. Shin*¹ *1. Chonnam National University, Yeosu, The Republic of Korea; 2. Chungnam National University, Daejeon, The Republic of Korea; 3. Korea Research Institute of Science and Ocean Engineering, Daejeon, The Republic of Korea*
[View Digest Text](#)

- GPB-02. Dynamic Magnetic Network Modeling and Electromagnetic Analysis of an External Rotor PMSM for Electric Hub System.** L. Wang¹, F. Shen¹, F. Marignetti², Q. Li¹ and N. Bianchi³ *1. Department of Electrical and Electronic Engineering, Harbin University of Science and Technology, Harbin, China; 2. University of Cassino and South Lazio, Cassino, Italy; 3. Department of Industrial Engineering, University of Padova, Padova, Italy*
[View Digest Text](#)
- GPB-03. A Study on the Shape of Axial Flux Motor for Collaborative Robot Joints to Improve Output.** J. Min¹, H. Pyo¹, N. Kang¹, M. Youn¹ and W. Kim¹ *1. Department of Electrical Engineering, Gachon University, Seongnam, The Republic of Korea*
[View Digest Text](#)
- GPB-04. A study on Performance Improvement of Axial Flux Motor through Halbach Array and Same Direction Skew.** M. Hong¹, W. Kim¹, H. Pyo¹, N. Jo¹ and D. Jung² *1. Electrical Engineering, Gachon University, Seongnam-Si, The Republic of Korea; 2. Halla Univerisity, Seongnam-Si, The Republic of Korea*
[View Digest Text](#)
- GPB-05. Experimental Verification and Characteristics Analysis of Permanent Magnet Synchronous Generator using Semi-Analytical Method.** H. Lee¹, J. Woo¹, K. Shin², K. Kim³, J. Park³ and J. Choi¹ *1. Chung Nam National University, Daejeon, The Republic of Korea; 2. Chonnam National University, Yeosu, The Republic of Korea; 3. Korea Research Institute of Ships and Ocean Engineering, Daejeon, The Republic of Korea*
[View Digest Text](#)
- GPB-06. Torque Ripple Suppression Under Open-Circuit Fault for DTPMSM Considering Phase Back EMF Harmonics.** C. Liu¹, J. Zou¹, Y. Xu¹ and Z. Liu¹ *1. School of Electrical Engineering and Automation, Harbin Institute of Technology, Harbin, China*
[View Digest Text](#)
- GPB-07. Computationally Efficient Estimation of PWM-induced Iron Loss of PMSM using Deep Transfer Learning.** S. Park^{1,2}, K. Kim² and M. Lim² *1. R&D Division, Hyundai Motor Company, Hwaseong, The Republic of Korea; 2. Department of Automotive Engineering, Hanyang University, Seoul, The Republic of Korea*
[View Digest Text](#)
- GPB-08. Comparative Study of Various Slot Pitch for 2-Pole 6-Slot Ultra-High Speed Permanent Magnet Synchronous Motor.** J. Kim¹, S. Im¹, S. An¹, K. Cha¹ and M. Lim¹ *1. Automotive Engineering, Hanyang University, Seoul, The Republic of Korea*
[View Digest Text](#)
- GPB-09. Transfer Learning-Based Design Method for Cogging Torque Reduction in PMSMs with Step-Skew considering 3-D Leakage Flux.** Y. Won¹, J. Kim¹, S. Park¹, J. Lee¹, S. An¹ and M. Lim¹ *1. Hanyang University, Seoul, The Republic of Korea*
[View Digest Text](#)

- GPB-10. Design of a Novel Double-Stator Transverse Flux Reversal Permanent Magnet Machine.** B. Zhang^{1,2}, R. Huang^{1,2}, Z. Song³, S. Liu^{1,2}, Z. Dong^{1,2}, Y. Liu^{1,2} and C. Liu^{1,2}
1. School of Energy and Environment, City University of Hong Kong, Hong Kong; 2. City University of Hong Kong Shenzhen Research Institute, Shen Zhen, China; 3. Department of Industrial and Systems Engineering, The Hong Kong Polytechnic University, Hong Kong, Hong Kong
[View Digest Text](#)
- GPB-11. Research and Analysis of Toroidal and Conventional Windings in Permanent Magnet Synchronous Machine.** X. Liang¹, M. Wang¹, P. Zheng¹, J. Gao¹ and W. Li¹ *1. Harbin Institute of Technology, Harbin, China*
[View Digest Text](#)
- GPB-12. Harmonic Component Analysis of Radial and Tangential Electromagnetic Force of Permanent Magnet Synchronous Motor.** J. Zou¹, M. Liu¹, Y. Xu¹, H. Lan² and G. Yu¹ *1. Harbin Institute of Technology, Harbin City, China; 2. Huawei Technologies Co., Ltd., Shenzhen City, China*
[View Digest Text](#)
- GPB-13. A Study on the Shape of a Small Wind Turbine with Fractional Slot Concentrated Winding to Realize Zero Cogging Level.** J. Kang¹, J. Kim¹, D. Jung², K. Kim², C. Kim³ and J. Lee¹ *1. Hanyang University, Seoul, The Republic of Korea; 2. Halla University, Wonju, The Republic of Korea; 3. Kangnam University, Yong-in, The Republic of Korea*
[View Digest Text](#)
- GPB-14. Study on the Offline Inter-turn Fault Diagnosis Performance According to the Parameter of Interior Permanent Magnet Synchronous Motor.** H. Kim¹, J. Kang¹, J. Kim¹, S. Won² and J. Lee¹ *1. Hanyang University, Seoul, The Republic of Korea; 2. Dongyang Mirae University, Seoul, The Republic of Korea*
[View Digest Text](#)
- GPB-15. Hybrid Rotor Multiple Magnet Design for Electric Vehicles.** C.I. Nlebedim¹ and A. Baghel¹ *1. Critical Materials Institute, Ames Laboratory, US Department of Energy, Ames, IA, United States*
[View Digest Text](#)
- GPB-16. Withdrawn**
- GPB-17. Withdrawn**

Session HOA
**MAGNETICALLY GEARED AND VERNIER
MACHINES I**

Jonathan Bird, Co-Chair
Portland State University, Portland, OR, United States
Udochukwu Akuru, Co-Chair
Tshwane University of Technology, Pretoria, South Africa

- HOA-01. Enhanced Assemblability and Maximum Transmission Torque of Interior Permanent Magnet Magnetic-Geared Motor.** *J. Okamoto*^{1,2}, *N. Niguchi*², *H. Kometani*¹, *H. Suzuki*¹, *K. Okazaki*¹ and *K. Hirata*² *1. Mitsubishi Electric Corporation, Amagasaki, Japan; 2. Osaka University, Suita, Japan*
[View Digest Text](#)
- HOA-02. A Novel Magnetic-Geared Motor Combining Magnetic Gear and SR Motor.** *K. Iwaki*¹, *K. Ito*¹ and *K. Nakamura*¹
1. Tohoku University, Sendai, Japan
[View Digest Text](#)
- HOA-03. Investigation of Maximum Torque of Interior Permanent Magnet Type Magnetic-Geared Generator Based on Magnetic Interaction.** *B. Dai*¹, *K. Ito*¹ and *K. Nakamura*¹
1. Graduate School of Engineering, Tohoku University, Sendai, Japan
[View Digest Text](#)
- HOA-04. Investigation on Inclination Angle of Inserted Permanent Magnets in Double-Stator Vernier Machines.** *Z. Cai*¹, *J. Yu*¹, *K. Yang*¹, *W. Mi*¹, *Z. Song*² and *Y. Luo*³ *1. School of Mechanical Engineering and Automation, Harbin Institute of Technology (Shenzhen), Shenzhen, China; 2. Department of Industrial and Systems Engineering, the Hong Kong Polytechnic University, Hong Kong SAR, China; 3. School of Electrical and Electronic Engineering, Huazhong University of Science and Technology, Wuhan, China*
[View Digest Text](#)
- HOA-05. An Integrated Axial-Flux Magnetic-Geared Double-Rotor Machine using Harmonic Current Injection Method for HEVs.** *J. Lang*¹, *C. Tong*¹, *J. Bai*¹, *J. Liu*¹, *G. Liu*¹ and *P. Zheng*¹ *1. Electrical Engineering, Harbin Institute of Technology, Harbin, China*
[View Digest Text](#)
- HOA-06. Design and Analysis of a Novel Double-Stator Hybrid Flux Machine for Direct-Drive Electric Traction.** *Z. Song*¹, *B. Zhang*², *W. Wang*², *Y. Liu*² and *D. Xiao*³ *1. Department of Industrial and Systems Engineering, The Hong Kong Polytechnic University, Kowloon, Hong Kong; 2. School of Energy and Environment, City University of Hong Kong, Kowloon, Hong Kong; 3. Sustainable Energy and Environment Thrust, The Hong Kong University of Science and Technology (Guangzhou), Guangzhou, China*
[View Digest Text](#)

- HOA-07. Development of Ultra High Speed Magnetic Gear.** *E. Asahina*¹, *K. Mitsuya*¹, *K. Nakamura*¹, *Y. Tachiya*², *Y. Suzuki*² and *K. Kuritani*² *1. Tohoku University, Sendai, Japan; 2. Prospine Co., Ltd., Osaki, Japan*
[View Digest Text](#)
- HOA-08. Experimental Verification of Increasing Torque Density by Magnetic Interaction in 500 Nm Class IPM-Type Magnetic-Geared Motor.** *K. Iwaki*¹, *K. Ito*¹ and *K. Nakamura*¹ *1. Tohoku University, Sendai, Japan*
[View Digest Text](#)

POSTER SESSION

Session HPA
MAGNETICALLY GEARED AND VERNIER
MACHINES II
(Poster Session)

Abdelmounaim Tounzi, Co-Chair
 Univ. Lille, Arts et Metiers Institute of Technology,
 Villeneuve d'Ascq, France
Makoto Ito, Co-Chair
 Hitachi, Ltd., Ibaraki, Japan

- HPA-01. Improvement of Transmission Torque Characteristics of Strain Wave Gear with Magnets.** *F. Kitayama*¹, *R. Kondo*¹ and *R. Endo*¹ *1. Graduate School of Science and Engineering, Ibaraki University, Hitachi-city, Japan*
[View Digest Text](#)
- HPA-02. Design of 20-MW Direct-Drive PM Vernier Generator with Minimal Volume.** *A. Rehman*¹, *J. Lee*¹, *Y. Kim*¹ and *B. Kim*¹ *1. Electrical Engineering, Gunsan National University, Gunsan, The Republic of Korea*
[View Digest Text](#)
- HPA-03. Design and Analysis of High-Torque-Density Consequent-Pole Permanent Magnet Vernier Motor with Even-Order Harmonics Cancellation.** *C. Chang*¹ and *M. Hsieh*¹ *1. National Cheng Kung University, Tainan, Taiwan*
[View Digest Text](#)
- HPA-04. Effects of the Rotor Mechanical Offset Angle on the Electromagnetic Performance of Dual Stator Wound-Field Flux Switching Machines.** *U.B. Akuru*¹, *W. Ullah*², *F. Khan*² and *L. Masisi*³ *1. Department of Electrical Engineering, Tshwane University of Technology, Pretoria, South Africa; 2. Department of Electrical and Computer Engineering, COMSATS University Islamabad, Abbottabad, Pakistan; 3. School of Electrical and Information Engineering, University of the Witwatersrand, Johannesburg, South Africa*
[View Digest Text](#)

- HPA-05. Prediction of Stress and Deformation Caused by Magnetic Attraction Force in Modulation Elements in A Magnetically Geared Machine Using Mathematical Modeling.** *M. Nguyen¹, J. Lee³, H. Shin¹, Y. Lee¹, H. Lee¹, K. Shin², A. Phung⁴ and J. Choi¹* 1. *Chung Nam National University, Daejeon, The Republic of Korea;* 2. *Chonnam National University, Yeosu, The Republic of Korea;* 3. *Hyundai Transys, Hwaseong, The Republic of Korea;* 4. *Hanoi University of Science and Technology, Hanoi, Vietnam*
[View Digest Text](#)
- HPA-06. Analysis of Loss Characteristics of a Double Stator Magnetic Gear Motor Based on Thin Non-Oriented Electrical Steel.** *D. Li¹, Y. Li¹, X. Zhang¹ and R. Pei¹* 1. *Department of Electrical Engineering, Shenyang University of Technology, Shenyang City, China*
[View Digest Text](#)
- HPA-07. A Novel S-Shape Offset Type of a Modulated Ferromagnetic Pole Piece Design for a Pseudo Direct Drive Motor.** *P. Huang¹, T. Chang¹, W. Yang¹, Y. Wu² and M. Tsai³* 1. *Electric Motor Technology Research Center, National Cheng Kung University, Tainan, Taiwan;* 2. *Department of Mechanical Engineering, National Yunlin University of Science and Technology, Yunlin, Taiwan;* 3. *Department of Mechanical Engineering, National Cheng Kung University, Tainan, Taiwan*
[View Digest Text](#)
- HPA-08. Robust Optimization and Design of Double-Stator Vernier Permanent Magnet Motors Considering Motor Punching Process.** *D. Fan¹, W. Shan¹, X. Zhu¹ and Z. Xiang¹* 1. *School of Electrical and Information Engineering, Jiangsu University, Zhenjiang, China*
[View Digest Text](#)
- HPA-09. Dynamic Performance Analysis of The Variable Speed Ratio Magnetic Gear.** *Y. Xiao¹, M. Lu¹ and X. Liu¹* 1. *College of Electrical and Information Engineering, Hunan University, Changsha 410082, China*
[View Digest Text](#)
- HPA-10. Comparison of Permanent Magnet Vernier Motors with Evenly and Unevenly Distributed Modulation Teeth.** *Z. He¹, F. Xiao¹, Y. Du¹ and X. Zhu¹* 1. *Jiangsu University, Zhenjiang, China*
[View Digest Text](#)
- HPA-11. Design and Analysis of Magnetic Geared Permanent Magnet Machine to Improve Electromagnetic Performance.** *J. Lee¹, S. Sung², J. Choi³ and K. Shin¹* 1. *Chonnam National University, Yeosu, The Republic of Korea;* 2. *Korea Research Institute of Science and Ocean Engineering, Daejeon, The Republic of Korea;* 3. *Chungnam National University, Daejeon, The Republic of Korea*
[View Digest Text](#)

- HPA-12. Design and Experimental Verification Considering the Electromagnetic-Mechanical Characteristics of a Coaxial Magnetic Gear for Permanent Magnet Wind Turbine.** J. Lee¹, K. Shin², H. Lee³, Y. Lee³, J. Woo³ and J. Choi³
1. Hyundai Transys, Hwaseong-si, The Republic of Korea; 2. Chonnam National University, Yeosu, The Republic of Korea; 3. Chung Nam National University, Daejeon, The Republic of Korea
[View Digest Text](#)
- HPA-13. Additional Magneto Motive Force of Spoke-Type Vernier Permanent-Magnet Machines.** Y. Liu¹, B. Song¹ and X. Tang¹
1. Huazhong University of Science and Technology, Wuhan, China
[View Digest Text](#)
- HPA-14. Analytical Modeling of a Spoke-type Double-stator Vernier Machine.** H. Zhao^{1,2} and J. Yu³
1. Robotics and Autonomous Systems, The Hong Kong University of Science and Technology (Guangzhou), Guangzhou, China; 2. Department of Electronic & Computer Engineering, The Hong Kong University of Science and Technology, Hong Kong, China; 3. School of Mechanical Engineering and Automation, Harbin Institute of Technology (Shenzhen), Shenzhen, China
[View Digest Text](#)
- HPA-15. Design and Analysis of Magnetic Gear-Axial Flux Generator for Wave Power Generation Based on Halbach Magnetic Circuit.** Y. Li¹, L. Huang¹, M. Chen¹ and M. Hu¹
1. Department of Electrical Engineering, Southeast University, Nanjing, China
[View Digest Text](#)
- HPA-16. Withdrawn**
- HPA-17. Quantitative Analysis and Comparison of In-Wheel Outer Rotor Consequent-Pole Flux-Switching Permanent Magnet Machines with Different Magnet Arrangements.** Y. Bi¹, W. Fu² and S. Niu¹
1. Electrical Engineering, The Hong Kong Polytechnic University, Hong Kong, Hong Kong; 2. Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, Shenzhen, China
[View Digest Text](#)
- HPA-18. Design and Analysis of Multiport Field Modulated Axial Flux Generator for Wave Power Generation.** Y. Li¹, L. Huang¹, M. Chen¹ and M. Hu¹
1. Southeast University, Nanjing, China
[View Digest Text](#)
- HPA-19. High Torque Density Toroidal Winding Permanent Magnet Vernier Machine with Dual Rotor.** B. Wang¹, R. Wang¹, M. Cheng¹ and Z. Wang¹
1. Southeast University, Nanjing, China
[View Digest Text](#)

- HPA-20. Influence of Electrical Steel Sheets Cutting on Dual-Winding Dual-Flux-Concentrated Magnetic-Field-Modulated Brushless Compound-Structure Machine.** G. Liu¹, P. Zheng¹, J. Bai¹, Y. Wang¹ and X. Liang¹ *1. School of Electrical Engineering & Automation, Harbin Institute of Technology, Harbin, China*
[View Digest Text](#)

ORAL SESSIONS

Session IOA SPECIAL MACHINES I

Cheng-Tsung Liu, Chair
National Sun Yat-Sen University, Kaohsiung, Taiwan

- IOA-01. Effects of the Partial Non-Magnetic Improvement Length and Position in the Bridge on the Flux of a Rotor Core for Obtaining a High Magnetic Flux.** N. Hamada^{1,2}, A. Watarai¹, H. Mitarai^{1,2}, K. Oikawa² and S. Sugimoto² *1. Aichi Steel Corporation, Tokai, Japan; 2. Tohoku University, Sendai, Japan*
[View Digest Text](#)
- IOA-02. Impact of Series and Parallel teeth on Performance of Counter Rotating Dual Rotor Permanent Magnet Flux Switching Machines.** W. Ullah¹, F. Khan¹ and U.B. Akuru² *1. Electrical and Computer Engineering, COMSATS Institute of Information Technology, Abbottabad, Pakistan; 2. Department of Electrical Engineering, Tshwane University of Technology, Pretoria Campus, South Africa*
[View Digest Text](#)
- IOA-03. Analysis of Three-Degree-of-Freedom Spherical Actuator Driven by Four-Phase.** Y. Tamaki¹, A. Heya¹ and T. Inoue¹ *1. Department of Mechanical Systems Engineering, Nagoya University, Nagoya City, Japan*
[View Digest Text](#)
- IOA-04. Dual-Axial Gap High-Speed Induction Motor using Wound Ultra-thin Laminated 3.5%Si-Steel Strip Core.** M. Enokizono², D. Wakabayashi¹, M. Oka¹, N. Soda³, M. Takai⁴, T. Kajiyama⁴, K. Okamoto⁶, K. Harmeyer⁵ and M. Nell⁵ *1. Mechanical Electric Engineering, Nippom Bunri University, Oita, Japan; 2. Vector Magnetic Characteristic Technical Laboratory, Usa, Japan; 3. Electrical Engineering, Ibaragi University, Hitachi, Japan; 4. Nippon Kinzoku Co, Ltd, Tokyo, Japan; 5. Institute of Electrical Machines, RWTH Aachen University, Aschen, Germany; 6. Tokuden, Co., Kyoto, Japan*
[View Digest Text](#)
- IOA-05. Analysis of Operation Characteristics for a Novel Axial Field Hybrid Excitation Synchronous Generator.** J. Yu¹, S. Zhu¹ and C. Liu¹ *1. Nanjing University of Aeronautics and Astronautics, Nanjing, China*
[View Digest Text](#)

- IOA-06. Enhanced Tunneling Performance of Magnetic Helical Robots Utilizing Pecking Motion Generated by Alternating Rotating Magnetic Field.** *J. Kwon¹, J. Sa¹, D. Lee¹ and G. Jang¹* *1. Hanyang University, Seoul, The Republic of Korea*
[View Digest Text](#)
- IOA-07. A Novel High-Performance Flux Reversal Motor with Cross-Pole Shape Stator.** *Y. Yu¹ and K. Nakamura¹* *1. Tohoku University, Sendai, Japan*
[View Digest Text](#)
- IOA-08. Influence of air gaps between grain-oriented steel sheets on losses in the magnetic system.** *A. Giraud¹, Y. Serdyuk¹ and T. Thiringer¹* *1. Chalmers University of Technology, Gothenburg, Sweden*
[View Digest Text](#)
- IOA-09. Dynamic Modeling of Two-Coil Two-Degree-of-Freedom Voice Coil Actuator.** *Y. Ohashi¹, A. Heya¹ and T. Inoue¹* *1. Mechanical Systems Engineering, Nagoya University, Nagoya, Japan*
[View Digest Text](#)
- IOA-10. Analytical Approach for the Optimal Design of Line Start Permanent Magnet Synchronous Motor (LSPMSM).** *H. Farooq¹, N. Bracikowski², P. La Delfa³ and M. Hecquet¹* *1. Centrale Lille, Lille, France; 2. University of Nantes, Nantes, France; 3. University of Lille, Lille, France*
[View Digest Text](#)
- IOA-11. Bearingless Doubly Salient Electromagnetic Motor with Combined Suspension Winding for Reduction of Suspension Force Cross-Coupling.** *L. Yu¹, Q. Xu¹, W. Chen¹ and Z. Zhang¹* *1. Nanjing University of Aeronautics and Astronautics, Nanjing, China*
[View Digest Text](#)
- IOA-12. Axial Flux Switched Reluctance Machine Modelling by a Quasi-3D Reluctance Network.** *M. Hatoum¹, S. Asfirane¹, G. Barakat¹ and Y. Amara¹* *1. Université Le Havre Normandie, Le Havre, France*
[View Digest Text](#)

ORAL SESSIONS

Session IOB

SPECIAL MACHINES II

Lei Xu, Chair

Jiangsu University, Zhenjiang, China

- IOB-01. Automatic MTPA Control Method for Magnetic-Geared Motor Using Sensorless Control Based on Extended Electromotive Force Model.** *N. Niguchi¹, K. Hirata¹ and J. Okamoto¹* *1. Osaka University, Suita, Japan*
[View Digest Text](#)

- IOB-02. Design and Comparative Analysis of Dual Rotor Wound Field Excited Flux Switching Generator for Wind Turbine Applications.** W. Ullah¹, F. Khan¹, A. Selema¹ and U.B. Akuru² 1. Department of Electromechanical, Systems and Metal Engineering, Ghent University, Ghent, Belgium; 2. Department of Electrical Engineering, Tshwane University of Technology, Pretoria Campus, South Africa
[View Digest Text](#)
- IOB-03. Design of a Novel Modular Flux Switching Permanent Magnet Resolver.** W. Mi¹, J. Yu¹, Z. Song², K. Yang¹, Z. Cai¹ and H. Zhao³ 1. School of Mechanical Engineering and Automation, Harbin Institute of Technology (Shenzhen), Shenzhen, China; 2. Department of Industrial and Systems Engineering, The Hong Kong Polytechnic University, Hongkong SAR, China; 3. Robotics and Autonomous Systems Thrust, The Hong Kong University of Science and Technology (Guangzhou), Guangzhou, China
[View Digest Text](#)
- IOB-04. Design and Analysis of a Six-Phase Axial Switched-Flux Permanent Magnet Machine with Different Winding Configuration.** J. Zhao¹, Z. Lu¹, Q. Han¹, L. Wang¹ and L. Wang¹ 1. School of Electrical Engineering, Xi'an University of Technology, Xi'an, China
[View Digest Text](#)
- IOB-05. Surrogate-Based Modeling of Induction Machines to Reduce the Computational Burden of Robust Multi-Objective Optimization.** O. Taqavi¹, A. Fatima¹, A.J. Bourgault¹, Z. Li¹, G. Byczynski², J. Tjong¹ and N. Kar¹ 1. Electrical and Computer Engineering, University of Windsor, Windsor, ON, Canada; 2. Nematik, Windsor, ON, Canada
[View Digest Text](#)
- IOB-06. Winding Magnetization Design of Single-Phase Capacitor-Run Induction Motor for Submersive Pump Application.** C. Liu¹, H. Chen¹, P. Wu¹ and P. Chao¹ 1. Department of Electrical Engineering, National Sun Yat-sen University, Kaohsiung, Taiwan
[View Digest Text](#)
- IOB-07. Multi-Mode Excitation Analysis and Design of a New Hybrid Excited Modular Stator Permanent Magnet Switched Reluctance Machine.** L. Xu¹, D. Xu¹, X. Zhu¹, C. Zhang¹ and X. zang¹ 1. School of Electrical and Information Engineering, Jiangsu University, Zhenjiang, China
[View Digest Text](#)
- IOB-08. Withdrawn**
- IOB-09. Nonlinear Force Model of a Double-Sided Linear Switched Reluctance Motor Using Intelligent Optimization Method.** S. Huang¹, P. He¹ and G. Cao¹ 1. Guangdong Key Laboratory of Electromagnetic Control and Intelligent Robots, Shenzhen University, Shenzhen, China
[View Digest Text](#)

- IOB-10. Four-Axes Controlled Superconducting Magnetic Levitation System Using Persistent Current.** *M. Komori*¹, *K. Murakami*¹, *K. Nemoto*² and *K. Asami*¹ *1. Electrical and Electronic Engineering, Kyushu Institute of Technology, Kitakyushu, Japan; 2. Superconducting Division, Furukawa Electric Co., Chiyoda, Japan*
[View Digest Text](#)
- IOB-11. Design Optimization of a Six-Degrees-of-Freedom Magnetically Levitated Planar Motor Using Response Surface Methodology.** *Y. Gan*¹, *S. Huang*¹ and *G. Cao*¹ *1. Guangdong Key Laboratory of Electromagnetic Control and Intelligent Robots, Shenzhen University, Shenzhen, China*
[View Digest Text](#)
- IOB-12. Analysis of Efficiency Maps of Synchronous Machines.** *H. Diab*¹, *S. Asfirane*¹ and *Y. Amara*¹ *1. University of Le Havre, Le Havre, France*
[View Digest Text](#)

POSTER SESSION

Session IPA **SPECIAL MACHINES III** **(Poster Session)**

Shuangxia Niu, Chair

The Hong Kong Polytechnic University, Kowloon, Hong Kong

- IPA-01. Magnetic Properties of Wound Laminated Cores for a Dual-Axial Gap Induction Motor under PWM Excitation.** *M. Oka*¹, *M. Enokizono*², *D. Wakabayashi*¹, *H. Kiyotake*³, *N. Soda*⁴, *M. Takai*⁵ and *T. Kajiya*⁵ *1. Mechanical and Electrical Engineering, Nippon Bunri University, Oita, Japan; 2. Vector Magnetic Characteristic Technical Laboratory, Oita, Japan; 3. Department of Electrical and Electronic Engineering, National Institute of Technology, Oita College, Oita, Japan; 4. Department of Electrical and Electronic Engineering, Ibaraki University, Hitachi, Japan; 5. Nippon Kinzoku Co. Ltd., Itabashi-ku, Japan*
[View Digest Text](#)
- IPA-02. A Novel Speed-Sensorless Wireless Universal Motor with Bidirectional Movement.** *H. Wang*¹, *K. Chau*¹, *W. Liu*¹ and *S. Goetz*² *1. The University of Hong Kong, Hong Kong; 2. Duke University, Durham, NC, United States*
[View Digest Text](#)
- IPA-03. Research on a Transverse-Dislocated Magnetic-Field Modulated Brushless Contra-Rotating Machine Adopting Different Core Material Combinations.** *Y. Wang*¹, *Y. Sui*¹, *G. Liu*¹, *X. Liang*¹ and *P. Zheng*¹ *1. Harbin Institute of Technology, Harbin, China*
[View Digest Text](#)
- IPA-04. A Brushless Hybrid Excited Motor based on Field Modulation Theory.** *Y. Du*¹, *X. Wang*¹, *F. Xiao*¹, *Z. He*¹ and *X. Zhu*¹ *1. Jiangsu University, Zhenjiang, China*
[View Digest Text](#)

- IPA-05. Programmable Behaviors of Magnetic Microrobots under the Fluidic Flow.** *M. Park*¹ and *J. Yoon*¹ *I. School of Integrated Technology, Gwangju Institute of Science and Technology, Gwangju, The Republic of Korea*
[View Digest Text](#)
- IPA-06. Withdrawn**
- IPA-07. Research on Magnetic Properties of Iron Core Based on Fe-Co Alloys under Multi-field Coupling.** *J. Li*¹, *S. Xu*¹, *L. Wang*¹ and *R. Pei*¹ *I. Department of Electrical Engineering, Shenyang University of Technology, Shenyang, China*
[View Digest Text](#)
- IPA-08. Sub-Harmonic Synchronous Machine Using a Dual Inverter and a Unique Three-Layer Stator Winding.** *S. Rafin*¹ and *O.A. Mohammed*¹ *I. Electrical and Computer Engineering, Florida International University, Miami, FL, United States*
[View Digest Text](#)
- IPA-09. Comparison of Torque Generation Capabilities of the Axial-Field Switched Reluctance Machine with Segmented Rotor for Four Winding Configurations under Sine Wave and Unipolar Current.** *S. Asfirane*¹, *G. Barakat*¹, *F. ChaBour*¹ and *Y. Amara*¹ *I. GREAH, Université Le Havre Normandie, Le Havre, France*
[View Digest Text](#)
- IPA-10. A Novel Consequent-Pole Contra-Rotating Machine with Zero-Sequence Current Excitation.** *M. Jiang*¹ and *S. Niu*¹ *I. Department of Electrical Engineering, The Hong Kong Polytechnic University, Kowloon, Hong Kong*
[View Digest Text](#)
- IPA-11. Withdrawn**
- IPA-12. A Built-In Integrated Magnetorheological Fluid Brake Permanent Magnet Synchronous Motor.** *Y. Hu*¹ and *W. Xu*¹ *I. School of Electrical Engineering, Southeast University, Nanjing, China*
[View Digest Text](#)

Session IPB
SPECIAL MACHINES AND RELUCTANCE
MACHINES
(Poster Session)

Thanh Anh Huynh, Chair
 National Cheng Kung University, Tainan, Taiwan

- IPB-01. Electromagnetic Design and Analysis of Low Speed High Torque Motor with Composite Rotor and Double Stator.** *S. Wang¹, S. Jin¹, S. Yu¹ and Z. Zhang¹ 1. Shenyang University of Technology, Shenyang, China*
[View Digest Text](#)
- IPB-02. Design and Performance Analysis of a New Synchronous Reluctance Machine with Hybrid Cores.** *S. Zhang¹, C. Liu¹, G. Lei², Y. Wang¹ and J. Zhu² 1. Hebei University of Technology, Tianjin, China; 2. Sydney University of Science and Technology, Sydney, NSW, Australia*
[View Digest Text](#)
- IPB-03. Design and Analysis of Wireless Stepper Motors Using Selective Wireless Power Transfer.** *S. Li¹, K. Chau¹, W. Liu¹ and C. Liu² 1. Department of Electrical and Electronic Engineering, The University of Hong Kong, Hong Kong; 2. School of Energy and Environment, City University of Hong Kong, Hong Kong*
[View Digest Text](#)
- IPB-04. Effective Performance Improvement Designs of a Hybrid Permanent-Magnet-Assisted Synchronous Reluctance Motor.** *C. Liu¹, W. Chen¹, S. Yen², Y. Hsu², P. Shih² and T. Lo² 1. Department of Electrical Engineering, National Sun Yat-sen University, Kaohsiung, Taiwan; 2. Research & Development Center, Nidec Taiwan Corporation, Tainan, Taiwan*
[View Digest Text](#)
- IPB-05. Additive Manufacturing Axial Flux Variable Reluctance Resolve.** *T. Chang¹, P. Huang¹, W. Huang¹, C. Huang², C. Mo² and M. Tsai³ 1. Electric Motor Technology Research Center, National Cheng Kung University, Tainan, Taiwan; 2. Department of Mechanical Engineering, National Kaohsiung University of Science and Technology, Kaohsiung, Taiwan; 3. Department of Mechanical Engineering, National Cheng Kung University, Tainan, Taiwan*
[View Digest Text](#)
- IPB-06. Analysis and Comparison of Novel Yokeless Double Rotor Mutually Coupled Switched Reluctance Motor.** *D. Fu¹, Z. Lv¹, H. Si¹, Y. Liu¹ and X. Wu¹ 1. School of Electrical Engineering, China University of Mining and Technology, Xuzhou, China*
[View Digest Text](#)

- IPB-07. Novel Slot-Opening-PM Variable Reluctance Machine with High-Order-Harmonic Winding.** *F. Ni¹, S. Niu¹, Z. Li¹ and X. Zhao²* 1. *Department of Electrical Engineering, The Hong Kong Polytechnic University, Hong Kong, Hong Kong;* 2. *School of Physics, Engineering and Technology, The University of York, York, United Kingdom*
[View Digest Text](#)
- IPB-08. A Novel High-Order-Harmonic Winding Design in Hybrid-Excited Reluctance Machine for Electric Vehicle Application.** *J. Jiang¹ and S. Niu¹* 1. *Electrical Engineering, The Hong Kong Polytechnic University, Hong Kong, Hong Kong*
[View Digest Text](#)
- IPB-09. Analysis and Magnetic Field Calculation Method for Motor with Saliency.** *X. Liang¹, M. Wang¹, P. Zheng¹, J. Gao¹ and W. Li¹* 1. *Harbin Institute of Technology, Harbin, China*
[View Digest Text](#)
- IPB-10. Analysis of Aluminum Eddy Current Effect for Planar Switched Reluctance Motors.** *J. Sun¹, Z. He¹, G. Cao², S. Huang², J. He³ and Q. Qian¹* 1. *School of Electrical Engineering, Southwest Jiaotong University, Chengdu, China;* 2. *Shenzhen Key Laboratory of Electromagnetic Control, Shenzhen University, Shenzhen, China;* 3. *University of Kentucky, Lexington, KY, United States*
[View Digest Text](#)
- IPB-11. Effect of cross-saturation on the performance of synchronous reluctance machine operating as autonomous generator.** *Y. Djouadi¹ and A. Tounzi¹* 1. *Université de Lille, Lille, France*
[View Digest Text](#)
- IPB-12. Research on the Influence of Magnetic Barrier Distribution on the Magnetic Field of Synchronous Reluctance Machine.** *P. Zheng¹, X. Liang¹, M. Wang¹, J. Gao¹ and W. Li¹* 1. *Harbin Institute of Technology, Harbin, China*
[View Digest Text](#)

ORAL SESSIONS

Session JOA

PERMANENT MAGNET MACHINES IV

Yacine Amara, Chair

Université Le Havre Normandie, Le Havre, France

- JOA-01. Evaluation of the Magneto-Elastic Effect on the High-Speed Capability of Rotors in Synchronous Machines with Buried Permanent Magnets.** *M. Lauerburg¹, B. Schauerte¹ and K. Hameyer¹* 1. *RWTH Aachen University, Institute of Electrical Machines (IEM), Aachen, Germany*
[View Digest Text](#)

- JOA-02. Development of High Efficiency PMSG with Extremely Thin Stator Lamination Materials for Electric-Propulsion UAV.** L. Li^{1,2}, Z. Zhang^{1,2}, W. Bian^{1,2}, J. Li^{1,2} and Y. Li^{1,2}
1. Nanjing University of Aeronautics and Astronautics, Nanjing, China; 2. Center for More-Electric-Aircraft Power System College of Automation Engineering, Nanjing, China
[View Digest Text](#)
- JOA-03. Design Optimization of Rotor Bridge and Fixing Hole for Spoke-Type PMSM.** Y. Liu¹, K. Ma¹ and J. Xu¹ 1. College of Electrical and Automation Engineering, Nanjing Normal University, Nanjing, China
[View Digest Text](#)
- JOA-04. Heat magnetizing method for high-performance neodymium magnets for EV and HEV motors.** M. Hori¹, N. Tomita¹ and J. Hinata² 1. Nihon Denji Sokki Co., LTD., Tokyo, Japan; 2. Daido Steel Co., Ltd., Nakatsugawa-shi, Japan
[View Digest Text](#)
- JOA-05. Effect of Radial and Axial Magnet Segmentation on PM Eddy Current Losses for Brushless Synchronous Motors.** Y. Demir¹, M. Onsal¹ and M. Aydin² 1. MDS Motor, Kocaeli, Turkey; 2. Kocaeli University, Kocaeli, Turkey
[View Digest Text](#)
- JOA-06. Torque Pulsation Suppression of Permanent Magnet Machine Based on Pole-Pair Shift.** L. Dai¹, W. Zhang², J. Gao¹, C. Li¹ and S. Huang¹ 1. College of Electrical and Information Engineering, Hunan University, Changsha, China; 2. Changsha University, Changsha, China
[View Digest Text](#)
- JOA-07. Reduction of Iron Loss on Motor Stator Cores by means of Secondary Current Heating Method.** Y. Tsuchida¹
1. Oita University, Oita, Japan
[View Digest Text](#)
- JOA-08. Impact of Soft Magnetic Material on Electromagnetic Force and Vibration of Permanent Magnet Electrical Machines.** B. Li¹, J. Zhu², C. Liu¹, G. Lei³ and Y. Li¹ 1. Hebei University of Technology, Tianjin, China; 2. The University of Sydney, Sydney, NSW, Australia; 3. University of Technology Sydney, Sydney, NSW, Australia
[View Digest Text](#)
- JOA-09. Influence of Harmonic Magnet Field on Radial Force of Fractional-Slot PM Machines with Consideration of Slot/Pole Combinations.** Y. Guo¹, K. Wang¹ and H. Sun²
1. Nanjing University of Aeronautics and Astronautics, Nanjing, China; 2. Nanjing Forestry University, Nanjing, China
[View Digest Text](#)
- JOA-10. Study on Electromagnetic Vibration Characteristics in Fractional Slot Permanent Magnet Synchronous Motor.** L. Bai^{1,2}, W. Jiang^{1,2} and L. Li^{1,2} 1. Nanjing University of Aeronautics and Astronautics, Nanjing, China; 2. Center for More-Electric-Aircraft Power System College of Automation Engineering, Nanjing, China
[View Digest Text](#)

JOA-11. **Withdrawn**

JOA-12. **A Novel Double Stator Hybrid-Excited Flux Reversal Permanent Magnet Machine with Halbach PM Arrays.** S. Ning¹, P. Seangwong¹, A. Siritaratiwat¹ and P. Khunkitti¹
1. Electrical Engineering, Khon Kaen University, Muang, Thailand
[View Digest Text](#)

JOA-13. **3D-printed Magnetic Iron Material Modeling for High Speed Actuators.** M. Pechlivanidou¹ and A.G. Kladas¹
1. Electrical and Computer Engineering, National Technical University of Athens, Athens, Greece
[View Digest Text](#)

JOA-14. **Thermal Management with Heat Pipes for PMSM with Dual Rotor and Yokeless Stator for Electrified Aircraft Propulsion.** Z. Wei¹, Y. Liu¹, H. Xue², Z. Zhang² and C. Chen¹ *1. Nanjing Normal University, Nanjing, China; 2. Nanjing University of Aeronautics and Astronautics, Nanjing, China*
[View Digest Text](#)

POSTER SESSION

Session JPA

PERMANENT MAGNET MACHINES V (Poster Session)

Daniele De Gaetano, Chair

The University of Sheffield, Sheffield, United Kingdom

JPA-01. **Analysis of A New Bidirectional Field Modulation Machine with Separated Type PM Excitation.** H. Wang¹, Y. Zhang¹, Y. Liu¹, C. He¹ and H. Zhu¹ *1. School of Electrical and Automation Engineering, Nanjing Normal University, Nanjing, China*
[View Digest Text](#)

JPA-02. **Comparative Analysis of Dual-Stator Permanent Magnet Machines With Squirrel Stator Teeth Designed in Hypotenuse.** H. Wang¹, Y. Xu¹, Y. Liu¹, J. Yang¹ and D. Wang² *1. School of Electrical and Automation Engineering, Nanjing Normal University, Nanjing, China; 2. Jiangsu Maiji Yiwei Electric Technology Co., Ltd, Nanjing, China*
[View Digest Text](#)

JPA-03. **Parameter Analysis and Multilevel Design Optimization of a Permanent Magnet Claw Pole Machine with Hybrid Cores.** H. Zhang¹, C. Liu¹, S. Zhang¹, G. Lei² and Y. Wang¹ *1. Hebei University of Technology, Tianjin, China; 2. Sydney University of Science and Technology, Sydney, NSW, Australia*
[View Digest Text](#)

- JPA-04. Magnetic Properties Evaluation of a Compacted Soft Magnetic Composite Core for Permanent Magnet Claw Pole.** *H. Du¹, C. Liu¹, S. Wu¹, S. Zhang¹ and Y. Wang¹*
1. Hebei University of Technology, Tianjin, China
[View Digest Text](#)
- JPA-05. Axis-Shifted Machines with Hybrid Rotors Considering Forward and Reverse Operations.** *S. Li¹, C. Di¹ and X. Bao¹*
1. Hefei University of Technology, Hefei, China
[View Digest Text](#)
- JPA-06. Withdrawn**
- JPA-07. Withdrawn**
- JPA-08. Design Optimization of an Interior Permanent Magnet Synchronous Machine with Asymmetric and Auxiliary Slot Structure.** *H. Zhang¹, C. Liu¹, S. Zhang¹, G. Lei² and Y. Wang¹*
1. Hebei University of Technology, Tianjin, China; 2. Sydney University of Science and Technology, Sydney, NSW, Australia
[View Digest Text](#)
- JPA-09. Improvement Torque Ripple Characteristics of Dual-Winding Square Wave Brushless DC Motor with Phase Difference Drive.** *S. Noguchi¹*
1. Aviation Technology Directorate, Japan Aerospace Exploration Agency (JAXA), Mitaka, Japan
[View Digest Text](#)
- JPA-10. Comparison Between Novel Pole-Changing and Conventional Flux Switching Permanent-Magnet Motors.** *Y. Mao¹, F. Xiao¹, Y. Du¹, Z. He¹, X. Zhu¹ and L. Quan¹*
1. Jiangsu University, Zhenjiang, China
[View Digest Text](#)
- JPA-11. Rotor Position Estimation for PMSM Based on Hall Interval Angle Compensation and Phase-Tracking.** *K. Li¹, J. Gao¹, L. Dai¹, S. Huang¹ and Y. Feng¹*
1. College of Electrical and Information Engineering, Hunan University, Changsha, China
[View Digest Text](#)
- JPA-12. Rotor Auxiliary Slot Design Optimization for Permanent Magnet Synchronous Motor with Double-Layer Rotor Structure for Electric Vehicle.** *H. Zhang¹, C. Liu¹, S. Zhang¹, G. Lei² and Y. Wang¹*
1. Hebei University of Technology, Tianjin, China; 2. Sydney University of Science and Technology, Sydney, NSW, Australia
[View Digest Text](#)

- JPA-13. Performance Improvement of Rare-Earth Free High-Speed Multilayer IPMSM Using Dual-Phase Magnetic Material.** Y. Jung¹, K. Kim² and M. Lim² *1. Hyundai Motor Company, Hwaseong, The Republic of Korea; 2. Hanyang University, Seoul, The Republic of Korea*
[View Digest Text](#)
- JPA-14. Investigation on Wide-Speed Operation of a New Five-Phase Fault-Tolerant Interior Permanent Magnet Motor from Perspective of Flux-Intensifying Effect.** S. Deng¹, L. Zhang¹ and D. Shen¹ *1. School of Electrical and Information Engineering, Jiangsu University, Zhenjiang City, China*
[View Digest Text](#)
- JPA-15. Influence of Additional Air Gaps Between Stator Tooth and Back-Iron on Acoustic Performance of Spoke-Type Permanent Magnet Synchronous Motor.** C. Liu¹, X. Qiu^{1,2}, K. Zhou¹ and J. Yang^{1,2} *1. School of Electric Engineering and Automation, Nanjing Normal University (NNU), Nanjing, China; 2. Nanjing Institute of Intelligent High-End Equipment Industry Co., Nanjing, China*
[View Digest Text](#)
- JPA-16. Extended Virtual-Signal-Injection MTPA Control of New Five-Phase Flux-Intensifying Interior Permanent Magnet Motor with Compensation Factor.** X. Chen¹, L. Zhang¹, X. Zhao¹ and Y. Wang² *1. School of Electrical and Information Engineering, Jiangsu University, Zhenjiang, China; 2. State Grid Zhenjiang Power Supply Company, Zhenjiang, China*
[View Digest Text](#)
- JPA-17. Withdrawn**

POSTER SESSION

Session JPB PERMANENT MAGNET MACHINES VI (Poster Session)

Fei Zhao, Chair
Harbin Institute of Technology (Shenzhen), Shenzhen, China

- JPB-01. Influence of Phase Shift Angle on Performance of PMSM with Dual Three-Phase Star and Delta Connection.** J. Yu¹, J. Yang¹ and S. Huang¹ *1. Hunan University, Changsha, China*
[View Digest Text](#)
- JPB-02. Analysis and Optimization of Dual Three-Phase PMSM for Integrated EMA with Harsh Space Constraint.** S. Zhu¹, J. Hu¹, K. Wang¹, Y. Guo¹, C. Liu¹ and Y. Bi¹ *1. Nanjing University of Aeronautics and Astronautics, Nanjing, China*
[View Digest Text](#)

- JPB-03. Axial Flux Permanent Magnet Electrical Machine with High Torque Density: Research on the Influence of Combined-Halbach Array on YASA Machine.** *Y. Lu¹, Y. Kai¹, S. Songjun¹ and Y. Luo¹* *1. Huazhong University of Science and Technology, Wuhan, China*
[View Digest Text](#)
- JPB-04. Thermal Characteristics and Cooling Methods of a Permanent Magnet Synchronous Motors with High Flux Density.** *J. Mao¹, Y. Pei¹ and T. Yoshida¹* *1. Electrical and Electrical Engineering, Kyushu University, Fukuoka, Japan*
[View Digest Text](#)
- JPB-05. Investigation of a New Split Stator-Permanent-Magnet Machine With Mechanical Manufacturing Consideration.** *H. Wang¹, C. Zhang¹, Y. Liu¹ and J. Yang¹* *1. School of Electrical Engineering, Nanjing Normal University, Nanjing, China*
[View Digest Text](#)
- JPB-06. A Dimension Reduction Transformation Method for the Hybrid Axial-Radial Machine.** *Z. Chen¹, S. Sun¹, B. Xu¹, Y. Wang¹, Y. Kai¹ and Y. Luo¹* *1. Electrical and Electronic Engineering, Hua Zhong University of Science and Technology, Wuhan, China*
[View Digest Text](#)
- JPB-07. Conductor Design Method Considering AC Resistance for High Efficiency of PMSM Using High Fill Factor Winding.** *K. Cha¹ and M. Lim²* *1. Advanced Mechatronics R&D Group, Korea Institute of Industrial Technology, Daegu, The Republic of Korea; 2. Department of Automotive Engineering, Hanyang University, Seoul, The Republic of Korea*
[View Digest Text](#)
- JPB-08. Modeling and Analysis of Different Assembly Faults of a Dual-stator Low-speed High-torque Permanent Magnet Drive Machine.** *J. Liu¹, C. Di¹, L. Wang¹ and X. Bao¹* *1. Hefei University of Technology, Hefei, China*
[View Digest Text](#)
- JPB-09. Comparative Study of Field Modulation Effects On Consequent-Pole PM Machines with Different Stator Slot Configurations.** *Y. Li^{1,2}, H. Lin¹, H. Yang¹ and Z. Zhao¹* *1. Jiangsu CRRC Electric Co., LTD, Yancheng, China; 2. School of Electrical Engineering and Automation, Anhui University, Hefei, China*
[View Digest Text](#)
- JPB-10. Investigation on the Influence of Eccentricity on the AC Copper Loss of High Speed Slotless Permanent Magnet Motor.** *S. Dai¹, J. Yang¹ and S. Huang¹* *1. Hunan University, Changsha, China*
[View Digest Text](#)
- JPB-11. Model Predictive Torque Control for a Flux-Modulated Permanent Magnet Motor With Torque Harmonic Injection.** *L. Quan¹, Y. Bai¹, L. Xu¹, X. Zhu¹ and L. Zhang¹* *1. School of Electrical and Information Engineering, Jiangsu University, Zhenjiang, China*
[View Digest Text](#)

- JPB-12. Modeling of Wind Turbine Drive Trains for Finite Element Analysis.** *A. Swain*¹, *C. Liu*² and *P. Pong*¹
1. Electrical and Computer Engineering, New Jersey Institute of Technology, Newark, NJ, United States; 2. School of Energy and Environment, City University of Hong Kong, Kowloon Tong, Hong Kong
[View Digest Text](#)
- JPB-13. Optimization and Design of U-Shaped In-Wheel Permanent Magnet Motor for High Torque and Low Weight.** *C. Han*¹, *X. Zhu*¹, *D. Fan*¹ and *Z. Xiang*¹ *1. Jiangsu University, Zhenjiang, China*
[View Digest Text](#)
- JPB-14. High Torque Density and Lightweight Design of Permanent Magnet In-wheel Motor Based on Magnetic Field Modulation Effect.** *Z. Xiang*¹ and *S. Bi*¹ *1. Jiangsu University, Zhenjiang, China*
[View Digest Text](#)
- JPB-15. High-Efficiency Region Analysis and Broadening Design of Permanent Magnet Motor Based on Variable Magnetic Field Effect.** *L. Quan*¹, *X. Yu*¹, *D. Fan*¹, *Z. Xiang*¹ and *X. Zhu*¹ *1. Jiangsu University, Zhenjiang, China*
[View Digest Text](#)
- JPB-16. Scroll-Type Stator for Axial Field Electric Machines.** *C.U. Ubadigha*¹, *P. Huang*¹, *T. Chang*¹ and *M. Tsai*²
1. Electric Motor Technology Research Center, National Cheng Kung University, Tainan, Taiwan; 2. Department of Mechanical Engineering, National Cheng Kung University, Tainan, Taiwan
[View Digest Text](#)
- JPB-17. Torque Ripple Optimization of the Interior Permanent Magnet Motor for Electric Vehicles.** *Y. Chen*², *H. Chang*² and *G. Chen*¹ *1. Mechanical and Electro-Mechanical Engineering, Tamkang University, New Taipei, Taiwan; 2. Mechanical Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan*
[View Digest Text](#)
- JPB-18. Influence Studies of the Flux-Barriers and PM Arrangements on High-Speed Flux-Intensifying Interior Permanent Magnet Motor Performance.** *T. Huynh*¹, *M. Hsieh*¹, *M. Tsai*², *P. Huang*² and *Z. Lee*² *1. Electrical Engineering, National Cheng Kung University, Tainan, Taiwan; 2. Mechanical Engineering, National Cheng Kung University, Tainan, Taiwan*
[View Digest Text](#)

Session KOA

LINEAR MOTORS / ACTUATORS

Metin Aydin, Co-Chair

Kocaeli University, Umuttepe, Izmit, Turkey

Johannes Paulides, Co-Chair

Advanced Electromagnetics Group, Waalwijk, Netherlands

- KOA-01. 3D Modeling of High-Temperature Superconducting Rotating Field Electrodynamic Maglev Motor.** *W. Qin¹*
1. EE, Beijing Jiaotong University, Beijing, China
[View Digest Text](#)
- KOA-02. Design and Analysis of a Double Layer Coils Linear Motor with Series Magnetic Circuit Structure Using for Linear Dynamic Loading Platform.** *J. Mu¹, H. Zhang¹, Y. Lou¹ and Y. Zhao¹*
1. Harbin Institute of Technology, Harbin, China
[View Digest Text](#)
- KOA-03. Dynamic Modeling and Analysis of Six-Degree-of-Freedom Vibration Device using Multi-Degree-of-Freedom Electromagnetic Actuator.** *K. Nagano¹, A. Heya¹ and T. Inoue¹*
1. Mechanical Systems Engineering, Nagoya University, Nagoya, Japan
[View Digest Text](#)
- KOA-04. Design of Wrist Rehabilitation Exoskeleton Device with Magnetic Serial Elastic Actuator.** *L. Cheng¹, Z. Chen¹ and J. Chang^{1,2}*
1. Power Mechanical Engineering, National Tsing Hua University, Hsinchu, Taiwan; 2. Mechanical and Computer-Aided Engineering, National Formosa University, Huwei, Taiwan
[View Digest Text](#)
- KOA-05. Dual-Rotor Electrodynamic Wheel Force Analysis.** *C. Bruce¹, M. Grubbs¹ and J. Bird¹*
1. Portland State University, Portland, OR, United States
[View Digest Text](#)
- KOA-06. Design of a Reaction Wheel with MRF-encapsulated Magnetic Ball.** *C. Hong-Siang¹, K. Peng¹, K. Ho² and J. Chang^{1,3}*
1. Power Mechanical Engineering, National Tsing Hua University, Hsinchu, Taiwan; 2. TECO Electric & Machinery Co., Taipei, Taiwan; 3. Mechanical and Computer-Aided Engineering, National Formosa University, Huwei, Taiwan
[View Digest Text](#)
- KOA-07. Force Generation Method of a Novel Three-Degree-of-Freedom Electromagnetic Actuator with Finger Ring Structure.** *Y. Dan¹, A. Heya¹ and T. Inoue¹*
1. Mechanical Systems Engineering, Nagoya University, Nagoya, Japan
[View Digest Text](#)
- KOA-08. A Rare-Earth-Free Linear Motor Replacing Coreless Linear Motors with Neodymium Sintered Magnets.** *T. Akiyama¹ and S. Imamori¹*
1. Fuji Electric Co., Ltd., Hino-city, Japan
[View Digest Text](#)

Session KPA

**ENERGY HARVESTING AND LINEAR MACHINES
(Poster Session)**

Jang-Young Choi, Co-Chair

Chungnam National University, Daejeon, The Republic of Korea

Johannes Paulides, Co-Chair

Advanced Electromagnetics Group, Waalwijk, Netherlands

- KPA-01. Study on smoothing generated voltage in the vertical linear vibration generator.** *H. Kojima*¹, T. Maruyama¹, Y. Koyanagi¹, E. Shirahama¹ and S. Ohashi¹ *I. Kansai University, Suita-shi, Japan*
[View Digest Text](#)
- KPA-02. Effects of the External Disturbances on Rotational Stability of the HTS Magnetic Bearings.** *K. Yagi*¹, R. Taniguchi¹, S. Ishida¹ and S. Ohashi¹ *I. Kansai University, Suita, Japan*
[View Digest Text](#)
- KPA-03. Withdrawn**
- KPA-04. Design of magnetic levitation-based harvester for very low frequencies.** *I. Royo-Silvestre*^{1,2}, J. Beato-Lopez^{1,2}, J. Algueta-Miguel^{3,4} and C. Gomez-Polo^{1,2} *1. Departamento de Ciencias, Universidad Publica de Navarra, Pamplona, Spain; 2. Institute for Advanced Materials and Mathematics INAMAT2, Universidad Publica de Navarra, Pamplona, Spain; 3. Departamento de Ingeniería de Electricidad, Electrónica y Comunicación, Universidad Publica de Navarra, Pamplona, Spain; 4. Institute for Smart Cities (ISC), Universidad Publica de Navarra, Pamplona, Spain*
[View Digest Text](#)
- KPA-05. Study of a Cancellation Coil for Reducing Magnetic Field Leakage in Contactless Power Transfer in Motion.** *M. Yokosawa*¹, S. Miyahara¹, F. Sato¹, H. Matsuki², K. Inada³, T. Abe³ and S. Sasaki⁴ *1. Graduate School of Engineering, Tohoku-Gakuin University, Tagajo, Japan; 2. Tohoku University, Sendai, Japan; 3. NITTOKU Co., Ltd, Saitama, Japan; 4. Hikari Denshi Co.,Ltd, Osaki, Japan*
[View Digest Text](#)
- KPA-06. Switchable Frequency Response Based on Electropermanent Magnet Actuator for Wide-Range Operation of Electromagnetic Devices.** *M. Kato*¹ and F. Kitayama¹ *I. Ibaraki University, Hitachi, Japan*
[View Digest Text](#)
- KPA-07. Design and Analysis of Wide-Bandwidth Actuator for Haptic Controller with Novel Magnetic Circuit.** *Z. Jiang*¹, J. Park¹ and S. Hwang¹ *I. Pusan National University, Busan, The Republic of Korea*
[View Digest Text](#)

- KPA-08. Magnetic Properties Evaluation on Cold-Rolled Steel Plates with Bending Process.** *T. Kai*^{1,2}, *S. Yamaguchi*¹ and *Y. Tsuchida*² *1. Mitsubishi Electric Corporation, 8-1-1 Tsukaguchi-honmachi, Amagasaki, Japan; 2. Oita University, 700 Dannoharu, Oita, Japan*
[View Digest Text](#)
- KPA-09. A Study of Stable Levitation Conditions Considering Propulsion of a Carrier in the Magnetically Levitated Conveyance System Using the Linear Stepper Motor.** *S. Mitsui*¹, *K. Taniguchi*¹ and *S. Ohashi*¹ *1. Electrical, Electronic and Information Engineering, Kansai University, Suita, Japan*
[View Digest Text](#)
- KPA-10. Development Acoustic Device Using Giant Magnetostrictive Material: Fundamental Consideration on Output Performance Due to Differences in Material Properties.** *T. Kato*⁶, *H. Okazaki*⁶, *T. Kitamura*¹, *F. Maehara*¹, *I. Kobayashi*¹, *J. Kuroda*², *D. Uchino*², *K. Ogawa*², *K. Ikeda*³, *A. Endo*⁴, *H. Kato*⁵, *T. Narita*⁵ and *M. Furui*⁶ *1. Course of Mechanical Engineering, Tokai University, Hiratsuka, Japan; 2. Course of Science and Technology, Tokai University, Hiratsuka, Japan; 3. Mechanical Engineering, Hokkaido University of Science, Sapporo, Japan; 4. Electrical Engineering, Fukuoka Institute of Technology, Fukuoka, Japan; 5. Prime Mover Engineering, Tokai University, Hiratsuka, Japan; 6. Mechanical Engineering, Tokyo University of Technology, Hachioji, Japan*
[View Digest Text](#)
- KPA-11. Withdrawn**
- KPA-12. Placement of Electromagnets for Edge-Supported Maglev Systems: Fundamental Consideration on Tilting Angle of Electromagnets.** *S. Baba*¹, *A. Endo*¹, *J. Kuroda*², *D. Uchino*², *K. Ogawa*², *K. Ikeda*³, *T. Kato*⁴, *T. Narita*² and *H. Kato*² *1. Fukuoka Institute of Technology, Fukuoka, Japan; 2. Tokai University, Hiratsuka, Japan; 3. Hokkaido University of Science, Sapporo, Japan; 4. Tokyo University of Technology, Hachioji, Japan*
[View Digest Text](#)
- KPA-13. 2-D FEA Based Iron Loss Calculation Method for Linear Oscillating Actuator Considering Equivalent Circumferential Stack Length of Segmented Outer Stator Structure.** *J. Lee*¹, *S. Park*¹, *P. Kim*¹, *D. Park*¹ and *M. Lim*¹ *1. Hanyang University, Seoul, The Republic of Korea*
[View Digest Text](#)
- KPA-14. Analysis and Modeling of a Flux-Switching Transverse-Flux Permanent Magnet Tube Linear Motor.** *D. Fu*¹, *K. Wu*¹, *X. Wang*¹ and *X. Wu*¹ *1. School of Electrical Engineering, China University of Mining and Technology, Xuzhou, China*
[View Digest Text](#)
- KPA-15. Experimental Verification of Torque Ripple Suppression Method Using Coriolis Force Generated by Electromagnetic Oscillatory Actuator.** *D. Naganuma*¹ and *M. Kato*¹ *1. Electrical and Electronics Systems, Ibaraki University, Ibaraki, Japan*
[View Digest Text](#)

- KPA-16. Bending Levitation System for Flexible Steel Plate (Experimental Consideration on Dynamic Behavior of Levitated Steel Plate).** *Y. Uchida*¹, *R. Miyazaki*¹, *K. Ogawa*¹, *J. Kuroda*¹, *D. Uchino*¹, *K. Ikeda*², *T. Kato*³, *A. Endo*⁴, *T. Narita*¹ and *H. Kato*¹ *1. Tokai University, Hiratsuka, Japan; 2. Hokkaido University of Science, Sapporo, Japan; 3. Tokyo University of Technology, Hachioji, Japan; 4. Fukuoka Institute of Technology, Fukuoka, Japan*
[View Digest Text](#)
- KPA-17. An Evolutionary Computation Approach for the Electromagnetic Field Assessment of Eddy Current Motion Dampers.** *A. Adly*^{2,1} and *S. Abd-El-Hafiz*³ *1. Electric Power Engineering Department, Cairo University, Giza, Egypt; 2. Egypt-Japan University of Science and Technology (E-JUST), Alexandria, Egypt; 3. Engineering Mathematics Department, Cairo University, Giza, Egypt*
[View Digest Text](#)
- KPA-18. An Examination of the Damping and Stiffness Terms Needed to Model the Dynamics of an Eddy Current Based Maglev Vehicle.** *J. Bird*¹ and *C. Bruce*¹ *1. Electrical and Computer Engineering, Portland State University, Portland, OR, United States*
[View Digest Text](#)
- KPA-19. Simple design for magnetic field energy harvesting.** *K. Tashiro*¹ *1. Faculty of Engineering, Shinshu University, Nagano, Japan*
[View Digest Text](#)
- KPA-20. Analysis and Optimization of Novel Series-SLSPC Compensation Network for PT-Symmetric WPT systems.** *Y. Gu*¹, *Q. Zhu*¹, *J. Wang*¹, *L. Jia*², *G. Li*², *J. Chen*¹ and *Z. Zhang*^{1,3} *1. School of Electrical and Information Engineering, Tianjin University, Tianjin, China; 2. Beijing Aerospace Automatic Control Institute, Beijing, China; 3. International Institute for Innovative Design and Intelligent Manufacturing of Tianjin University, Shaoxing, China*
[View Digest Text](#)
- KPA-21. An Integrated Rotary Transformer and 3-Phase Dual-Active-Bridge Converter for High Power Transfer in Novel X-rotor Wind Turbines.** *R. Yazdanpanah*¹, *S. Mortazavizadeh*¹, *Y. Teng*¹, *O. Anaya-Lara*¹ and *D. Campos-Gaona*¹ *1. Electronic and Electrical Engineering, University of Strathclyde, Glasgow, United Kingdom*
[View Digest Text](#)
- KPA-22. Anisotropic magnetostriction for low-frequency energy harvesting applications.** *Y. Liu*¹, *L. Daniel*², *B. Ducharne*^{4,3}, *G. Sebald*⁴, *M. Lallart*³ and *K. Makihara*¹ *1. Department of Aerospace Engineering, Tohoku University, Sendai, Japan; 2. Université Paris-Saclay, CentraleSupélec, CNRS, Laboratoire de Génie Electrique et Electronique de Paris, Saclay, France; 3. Univ. Lyon, INSA Lyon, LGEF EA682, Lyon, France; 4. ELyTMaX IRL3757, CNRS, Univ Lyon, INSA Lyon, Centrale Lyon, Université Claude Bernard Lyon 1, Tohoku University, Sendai, Japan*
[View Digest Text](#)

- KPA-23. Design Consideration of Magnetic Energy Harvesting System: Comparison with Design of Current Transformer.** *S. Huh*³, *J. Koo*¹, *O. Jeong*² and *S. Ahn*³ *1. Ferraris Inc., Las Vegas, NV, United States; 2. Electronic Engineering, Sogang University, Seoul, The Republic of Korea; 3. CCS Graduate School of Mobility, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, The Republic of Korea*
[View Digest Text](#)

ORAL SESSIONS

Session LOA SPECIAL MACHINES IV

Yacine Amara, Co-Chair
University of Le Havre, Le Havre, France
Elena Lomonova, Co-Chair
Technische Universiteit Eindhoven, Eindhoven, Netherlands

- LOA-01. Permanent-Magnet-Free Variable Flux Reluctance Machines: Towards a Nonlinear Magnetodynamic Modeling Framework for Heavy-Duty Applications. (Invited)** *D. Ceylan*¹ *1. Eindhoven University of Technology, Eindhoven, Netherlands*
[View Digest Text](#)
- LOA-02. Investigation of Ferrofluid Cooling in Modular Permanent Magnet Machines.** *W. Zhang*¹, *G. Li*¹, *Z. Zhu*¹, *B. Ren*², *Y. Chong*² and *M. Michon*² *1. The University of Sheffield, Sheffield, United Kingdom; 2. Motor Design Ltd, Wrexham, United Kingdom*
[View Digest Text](#)
- LOA-03. Analysis and Optimization of Asymmetric Multi-Layer Barrier Permanent Magnet Motor for Electric Vehicles.** *F. Li*¹, *L. Shi*¹, *D. Xiao*¹, *Z. Qiao*¹, *X. Zhao*¹ and *H. Ding*² *1. Shandong University of Technology, Zibo, China; 2. Jiangsu Haopeng Machinery Co., Ltd., Xinghua, China*
[View Digest Text](#)
- LOA-04. Open-Delta Flux-Modulating Consequent Pole Motors.** *H. Mitsuda*^{1,2}, *T. Fukami*¹, *M. Koyama*¹ and *T. Tanaka*² *1. Kanazawa Institute of Technology, Ishikawa, Japan; 2. Mitsubishi Electric Corporation, Hyogo, Japan*
[View Digest Text](#)
- LOA-05. Inductance Map Regression of Doubly Excited Electrical Machines Considering Cross-Saturation.** *G. Bayazit*¹, *E. Ilhan Caarls*¹ and *E. Lomonova*¹ *1. Eindhoven University of Technology, Eindhoven, Netherlands*
[View Digest Text](#)
- LOA-06. Model for Angular Dependency of the Intrinsic Coercivity Force of Ferrite Permanent Magnets.** *M. Silva*¹, *E. Lind*¹, *A. Ibrayeva*¹, *S. Ghorai*² and *S. Eriksson*¹ *1. Department of Electrical Engineering, Uppsala University, Uppsala, Sweden; 2. Department of Materials Science and Engineering, Uppsala University, Uppsala, Sweden*
[View Digest Text](#)

- LOA-07. Design and Evaluation of a Linear Permanent Magnet Flux Switching Machine for Use in Dry Gravity Energy Storage.** *M. Mugyema¹, M.J. Kamper¹ and R. Wang¹*
1. Electrical and Electronic Engineering, Stellenbosch University, Stellenbosch, South Africa
[View Digest Text](#)
- LOA-08. Iron Loss Analytical Prediction of IPMSMs Considering Multi-factor Effects Over the Drive Cycle of Electric Vehicles.** *L. Liu¹, Y. Guo¹, G. Lei¹, W. Yin² and J. Zhu²*
1. School of Electrical and Data Engineering, University of Technology Sydney, Sydney, NSW, Australia; 2. School of Electrical and Information Engineering, The University of Sydney, Sydney, NSW, Australia
[View Digest Text](#)
- LOA-09. A Novel Counter-Rotating Axial-Flux Hybrid-Excitation Permanent Magnet Machine with Dual-Rotor.** *C. Xia¹, Y. Feng¹, M. Jia¹, Y. Gao¹ and S. Huang¹* *1. College of Electrical and Information Engineering, Hunan University, Changsha, China*
[View Digest Text](#)
- LOA-10. Comparison between Conical and Axial Flux Geometries of High-Speed Permanent Magnets Synchronous Machines.** *H. Taha¹, G. Barakat¹, Y. Amara¹ and M. Hatoum¹*
1. Université Le Havre Normandie, Groupe de Recherche en Electrotechnique et Automatique du Havre (GREAH), Le Havre, France
[View Digest Text](#)
- LOA-11. Analysis of a Five-Phase Hybrid Excited Axial Switched-Flux Permanent Magnet Machine for HEV/EV Applications.** *J. Zhao¹, Z. Lu¹, Q. Han¹, L. Wang¹ and L. Wang¹* *1. School of Electrical Engineering, Xi'an University of Technology, Xi'an, China*
[View Digest Text](#)
- LOA-12. Comparative Analysis of Noise and Vibration for Dual Three-Phase IPMSM under Healthy and Multi-Phase Open-Circuit Fault Operations.** *P. Song¹, W. Li¹, Z. Li¹ and N. Kar¹* *1. Department of Electrical & Computer Engineering, University of Windsor, Windsor, ON, Canada*
[View Digest Text](#)

Session LPA
SPECIAL MACHINES V
(Poster Session)

Mi-Ching Tsai, Co-Chair

National Cheng Kung University, Tainan, Taiwan

Chinweze Ubadigha, Co-Chair

National Cheng Kung University, Tainan, Taiwan

- LPA-01. Hybrid-Excitation Variable Flux Memory Motor for Enhancing Output Power Density in Traction Applications in Six-Step Operation Mode.** *R. Tsunata¹, K. Yokomichi¹, M. Takemoto¹ and J. Imai¹* *1. Okayama University, Okayama, Japan*
[View Digest Text](#)
- LPA-02. Initial Rotor Position Estimation for an Ultra-low Inductive Saliency Machine Based on Eddy Current Loss.** *H. Wang¹, W. Xu¹ and Z. Jin¹* *1. School of Electrical Engineering, Southeast University, Nanjing, China*
[View Digest Text](#)
- LPA-03. Toroidal Field Excitation for Axial-Field Double-Rotor Flux-Reversal DC Motors with Magnetic Differential.** *T. Yang¹, K. Chau¹, Z. Hua¹ and H. Pang¹* *1. Department of Electrical and Electronic Engineering, The University of Hong Kong, Hong Kong*
[View Digest Text](#)
- LPA-04. Torque Performance Enhancement for Hybrid PM Motor Considering Magnet Characteristic Difference and Variation.** *Y. Chen¹, X. Zhou¹, Z. Li¹ and X. Zhu²*
1. Yangzhou University, Yangzhou, China; 2. Jiangsu University, Zhenjiang, China
[View Digest Text](#)
- LPA-05. Novel Electrically Excited Doubly Salient Variable Reluctance Machine with High-Order-Harmonic Winding.** *F. Ni¹, S. Niu¹, Z. Li¹ and X. Zhao²* *1. Department of Electrical Engineering, The Hong Kong Polytechnic University, Hong Kong, Hong Kong; 2. School of Physics, Engineering and Technology, The University of York, York, United Kingdom*
[View Digest Text](#)
- LPA-06. Principle and Analysis of Structure of Low-Speed High-Torque Gear Meshing Motor Driven by Radial Force.** *G. Yu¹, S. Sun¹, L. Xiao¹, W. Zhang¹, X. Bai¹ and Y. Xu¹*
1. School of Electrical Engineering and Automa, Harbin Institute of Technology, Harbin, China
[View Digest Text](#)
- LPA-07. Power Factor Improvement of Variable Leakage Flux PM Motor Under Different Operation Conditions.** *X. Zhou¹, X. Zhu¹, Z. Xiang¹, L. Xu¹, D. Fan¹ and T. Wang¹* *1. Jiangsu University, Zhenjiang, China*
[View Digest Text](#)

- LPA-08. Experimental verification for electromagnetic and thermal characteristics of a high-speed permanent magnet motor with two different rotors.** *J. Woo*¹, *H. Lee*¹, *J. Shin*² and *J. Choi*¹ *1. Electrical Engineering, Chungnam National University, Daejeon, The Republic of Korea; 2. TNE Korea, Cheongju-si, The Republic of Korea*
[View Digest Text](#)
- LPA-09. Novel Stator Multi-Tooth Hybrid Permanent Magnet Memory Motor.** *L. Wang*¹ and *W. Xu*¹ *1. Southeast University, Nanjing, China*
[View Digest Text](#)
- LPA-10. Influence of Split Ratio on Field Modulation Effect in Consequent-Pole Permanent Magnet Machine.** *Y. Li*^{1,2}, *H. Lin*¹, *H. Yang*¹ and *Z. Zhao*³ *1. School of Electrical Engineering, Southeast University, Nanjing, China; 2. School of Electrical Engineering and Automation, Anhui University, Hefei, China; 3. Jiangsu CRRC Electric Co., LTD, Yancheng, China*
[View Digest Text](#)
- LPA-11. Investigation on the Influence of Various Sensitivity Analysis Methods on the Performance of PMSMs.** *F. Li*¹, *H. Zhao*^{1,2} and *Z. Yin*¹ *1. Robotics and Autonomous Systems Thrust, The Hong Kong University of Science and Technology(Guangzhou), Guangzhou, China; 2. Department of Electronic & Computer Engineering, The Hong Kong University of Science and Technology, Hong Kong, China*
[View Digest Text](#)
- LPA-12. Research on Motor Performance Based on Hybrid Lamination of Silicon Steel and Amorphous Alloy.** *W. Li*^{1,2}, *H. Hu*¹, *Z. Li*¹, *J. Wang*¹, *D. Ma*¹ and *R. Pei*¹ *1. Department of Electrical Engineering, Shenyang University of Technology, Shenyang City, China; 2. School of Electrical and Mechanical Engineering (Engineering Training Centre), XuChang University, Xuchang City, China*
[View Digest Text](#)
- LPA-13. Withdrawn**
- LPA-14. Research on High-Efficiency Motor Based on Ultra Low Resistance Graphene-Copper Wire.** *S. Xu*¹, *J. Li*¹ and *R. Pei*¹ *1. Department of Electrical Engineering, Shenyang University of Technology, Shenyang, China*
[View Digest Text](#)
- LPA-15. Equivalent Magnetic Network Modeling of Grain-Oriented Silicon Steel Sheets Permanent Magnet Linear Synchronous Motors.** *T. Dong*¹, *Z. Gao*¹, *B. Zhang*¹ and *R. Fu*¹ *1. Shenyang University of Technology, ShenYang, China*
[View Digest Text](#)
- LPA-16. Design and Analysis of Low-Cost Double Rotor Axial Flux Permanent Magnet Synchronous Motor.** *C. Diao*¹, *W. Zhao*¹, *H. Ding*¹ and *X. Wang*¹ *1. Shandong University, Jinan, China*
[View Digest Text](#)

- LPA-17. Investigation of a Novel Partitioned Stator Hybrid Excitation Spoke-Type Vernier Machine.** *D. Liu¹, L. Wei¹, X. Tan¹, H. Zhou² and J. Yuan²* 1. *School of Intelligent Systems Engineering, Sun Yat-Sen University, Guangzhou, China;* 2. *School of Electrical Engineering and Automation, Wuhan University, Wuhan, China*
[View Digest Text](#)
- LPA-18. Loss Model of Interior Permanent Magnet Synchronous Machine with Series Iron-Loss Resistance.** *Y. Ma^{1,2}, H. Yuan^{1,2}, W. Yin^{1,2}, Y. Huan^{1,2} and R. Zhao^{1,2}* 1. *Zhejiang University, Hangzhou, China;* 2. *Zhejiang Provincial Key Laboratory of Electrical Machine Systems, Hangzhou, China*
[View Digest Text](#)
- LPA-19. Comparison of Simulation Methods for Angular Dependency when Modeling Demagnetization.** *S. Eriksson¹ and M. Silva¹* 1. *Electrical Engineering, Uppsala University, Uppsala, Sweden*
[View Digest Text](#)
- LPA-20. Multi-Objective Design Optimization of an IPMSM Drive System Based on Loss Minimization Control Strategy.** *L. Liu¹, Y. Guo¹, G. Lei¹, W. Yin² and J. Zhu²* 1. *School of Electrical and Data Engineering, University of Technology Sydney, Sydney, NSW, Australia;* 2. *School of Electrical and Information Engineering, The University of Sydney, Sydney, NSW, Australia*
[View Digest Text](#)

ORAL SESSIONS

Session MOA

HIGH FREQUENCY DEVICES & WIRELESS POWER TRANSMISSION I

Yacine Amara, Co-Chair

Université Le Havre Normandie, Le Havre, France

Shuangxia Niu, Co-Chair

The Hong Kong Polytechnic University, Kowloon, Hong Kong

- MOA-01. Semi-Analytical Non-Linear Physical Model of the Core Losses in Ferrite Ring Cores.** *T. Dimier¹ and J. Biela¹* 1. *D-ITET / HPE, ETH Zurich, Zürich, Switzerland*
[View Digest Text](#)
- MOA-02. Iron loss characteristics for various magnetic materials under PWM inverter excitation.** *T. Yamaguchi¹, H. Matsumori¹ and T. Kosaka¹* 1. *Department of Electrical and Mechanical Engineering, Nagoya Institute of Technology, Nagoya-shi, Japan*
[View Digest Text](#)

- MOA-03. Toroidal Nanocrystalline Powder Core with Trapezoidal Cross Section.** X. Li¹, Z. Luo¹, L. Shillaber¹, B. Hu¹, C. Jiang² and T. Long¹ 1. *Department of Engineering, University of Cambridge, Cambridge, United Kingdom;* 2. *Department of Electrical Engineering, City University of Hong Kong, Hong Kong*
[View Digest Text](#)
- MOA-04. Optimum Air Gap Selection in Powder Core Inductors.** L. Solimene¹, D. Cittanti¹, F. Mandrile¹, C. Ragusa¹ and R. Bojoi¹ 1. *DENERG, Politecnico di Torino, Torino, Italy*
[View Digest Text](#)
- MOA-05. Fabrication of CoFeB-SiO₂ films with large uniaxial anisotropic by facing target sputtering and its application to high frequency planar type spiral inductors.** Y. Takamura¹, H. Nitta¹, K. Kawahara¹, T. Kaneko¹, R. Ishido², T. Miyazaki², N. Hosoda³, K. Fujisaki³ and S. Nakagawa¹ 1. *Tokyo Institute of Technology, Meguro-ku, Japan;* 2. *ROHM Co., Ltd, Kyoto, Japan;* 3. *Toyota Technological Institute, Nagoya, Japan*
[View Digest Text](#)
- MOA-06. Semi-Lumped Model for U- or E-Cores for the Calculation of Frequency Dependent Complex Permeance.** T. Dimier¹ and J. Biela¹ 1. *D-ITET / HPE, ETH Zurich, Zürich, Switzerland*
[View Digest Text](#)
- MOA-07. Hysteresis Effect Induced Inductance Change and Power Loss for Boost Converter during the Voltage Conversion.** J. Lee¹, C. Li², C. Liao³, T. Liao³, K. Nidhi³ and K. Chen² 1. *Device Engineering, Vanguard International Semiconductor, Hsinchu, Taiwan;* 2. *Department of Electrical and Computer Eng., National Yang Ming Chiao Tung University, Hsinchu, Taiwan;* 3. *ESD, Richtek Technology Corp., Chupei, Taiwan*
[View Digest Text](#)
- MOA-08. Minor Loop Position and Area Measurement of Inductors for DC-DC converter Considering Excitation Process.** K. Oda¹, K. Takano¹ and K. Wada¹ 1. *System Design, Tokyo Metropolitan University, Hachioji, Japan*
[View Digest Text](#)
- MOA-09. Optimal Inductor Design for Power Electronic Converter.** M. Haji Mohammadi¹, I. Askarian², H. Abiane¹ and A. Knight² 1. *Amirkabir University of Technology, Tehran, The Islamic Republic of Iran;* 2. *University of Calgary, Calgary, AB, Canada*
[View Digest Text](#)

- MOA-10. Inductive heating based on VHF-ISM radio band frequencies as technology platform for efficient heating of metallic micro-scaled bonding layers in MEMS packaging.** C. Hofmann¹, M. Kroll², S. Panhale², M. Wiemer¹, A. Kunke², K. Hiller³ and H. Kuhn^{4,3} *1. System Packaging, Fraunhofer Institute for Electronic Nano Systems ENAS, Chemnitz, Germany; 2. Institute for Machine Tools and Production Processes, Chemnitz University of Technology, Chemnitz, Germany; 3. Center for Microtechnologies, Chemnitz University of Technology, Chemnitz, Germany; 4. Fraunhofer Institute for Electronic Nano Systems ENAS, Chemnitz, Germany*
[View Digest Text](#)
- MOA-11. A Novel Planar Magnetic Flux Concentrator and Its Application in Wireless Power Transfer.** J. Lu¹ and X. Li¹ *1. School of EBE, Griffith University, Brisbane, QLD, Australia*
[View Digest Text](#)
- MOA-12. Optimized High-Order Compensation Topology for PT-WPT Systems with Expanded Constant Power Region.** Y. Gu¹, J. Wang¹, Q. Zhu¹, Z. Liang¹, J. Chen¹ and Z. Zhang^{1,2} *1. School of Electrical and Information Engineering, Tianjin University, Tianjin, China; 2. International Institute for Innovative Design and Intelligent Manufacturing of Tianjin University, Shaoxing, China*
[View Digest Text](#)
- MOA-13. Analysis of Cross-Coupling Effect for Multi-Objective Wireless Power Transfer.** H. Pang¹, K. Chau¹, Z. Hua¹ and T. Yang¹ *1. Electrical and Electronic Engineering, The University of Hong Kong, Hong Kong*
[View Digest Text](#)
- MOA-14. Downsizing of High-Power Open-End Coil with Pure Water.** I. Masuda¹, M. Fukuoka¹ and M. Ishitobi¹ *1. National Institute of Technology, Nara College, Yamatokoriyama, Japan*
[View Digest Text](#)
- MOA-15. Withdrawn**
- MOA-16. Constant Power Control against M/R with Expanded PT-Symmetric Range for Wireless In-Flight Charging of Drones.** Y. Gu¹, Q. Zhu¹, J. Wang¹, L. Jia², G. Li², J. Chen¹ and Z. Zhang^{1,3} *1. School of Electrical and Information Engineering, Tianjin University, Tianjin, China; 2. Beijing Aerospace Automatic Control Institute, Beijing, China; 3. International Institute for Innovative Design and Intelligent Manufacturing of Tianjin University, Shaoxing, China*
[View Digest Text](#)
- MOA-17. Dynamic Wireless Charging for Electric Vehicles with Autonomous Frequency Control.** Z. Hua¹, K. Chau¹, H. Pang¹ and T. Yang¹ *1. Department of Electrical and Electronic Engineering, The University of Hong Kong, Hong Kong, China*
[View Digest Text](#)

Session MOB
POWER APPARATUSES I
 Hamed Hamzehbahmani, Chair
 Durham University, Durham, United Kingdom

- MOB-01. Stray Loss Evaluation of Power Transformers Using Simplified Air-core Model with Tank and Frame. (Invited)**
B. Liu¹, T. Yasuhito¹, K. Fujiwara¹ and S. Imamori²
1. Doshisha University, KYOTO, Japan; 2. Advanced Technology Laboratory, Fuji Electric Co., Ltd., TOKYO, Japan
[View Digest Text](#)
- MOB-02. Noninvasive sensor patch for internal magnetic core characterization.** *S. Nguedjang¹, A. Solignac², R. Sabariego³, L. Morel⁴, M. Raullet⁴, B. Toutsoy¹, P. Tsafack¹ and B. Ducharne⁵*
1. Faculty of Engineering and Technology, University of Buea, Buea, Cameroon; 2. SPEC, CEA, CNRS, Université Paris-Saclay, CEA Saclay, Saclay, France; 3. Dept. of Electrical Engineering (ESAT), KU Leuven, Campus EnergyVille, Leuven, Belgium; 4. Laboratoire Ampère, Université de Lyon, Lyon, France; 5. ELyTMaX IRL3757, CNRS, Univ Lyon, INSA Lyon, Centrale Lyon, Université Claude Bernard Lyon 1, Tohoku University, Sendai, Japan
[View Digest Text](#)
- MOB-03. Investigation of the Magnetic Indicators Affected by Residual Strain when Testing Electrical Steel Sheets.**
S. Zhang^{1,2}, B. Ducharne², S. Takeda¹, G. Sebald¹ and T. Uchimoto¹
1. Tohoku University, Sendai, Japan; 2. INSA Lyon, Lyon, France
[View Digest Text](#)
- MOB-04. An Experimental-Analytical Approach for Condition Monitoring of Magnetic Cores with Predominant Focus on Axial Off-Set Between the Short Circuit Points.**
H. Hamzehbahmani¹, R. Sabariego² and B. Ducharne³
1. Engineering, Durham University, Durham, United Kingdom; 2. KU Leuven, Genk, Belgium; 3. Univ Lyon, Lyon, France
[View Digest Text](#)
- MOB-05. Influence of Thickness on Eddy Current Losses in Materials Used as Clamping Structures in High-Power Electrical Machines.** *W.M. Mohand Oussaid^{1,2}, A. Tounzi⁴, R. Romary³, A. Benabou⁴, D. Laloy¹ and W. Boughanmi¹*
1. R&D, Jeumont Electric, Jeumont, France; 2. L2EP/LSEE, FRANCE, France; 3. Université d'Artois, Béthune, France; 4. Université de Lille, Lille, France
[View Digest Text](#)
- MOB-06. Air-Core Power Inductor with Structure of High Energy Density and Low Copper Loss.** *E. Asahina¹, M. Fukuoka², I. Masuda², A. Nagai², K. Maeda³ and M. Ishitobi²*
1. Tohoku University, Sendai, Japan; 2. National Institute of Technology, Nara College, Nara, Japan; 3. DAIHEN Corporation, Osaka, Japan
[View Digest Text](#)

- MOB-07. Basic Characteristics of Orthogonal-Core-Type Variable Inductor with Permanent Magnets.** *S. Aizu*¹, *K. Nakamura*¹, *T. Ohinata*² and *K. Arimatsu*² *1. Graduate School of Engineering, Tohoku University, Sendai, Japan; 2. Tohoku Electric Power Co., Inc., Sendai, Japan*
[View Digest Text](#)
- MOB-08. Coupled Field–Circuit Modeling and Analysis for Interturn Short-Circuit Faults in an Onboard Traction Transformer.** *C. Yan*¹, *W. Wang*¹, *P. Zhang*¹, *Z. Liu*¹, *J. Shu*² and *B. Zhang*¹ *1. Xi'an Jiaotong University, Xi'an, China; 2. Xi'an Thermal Power Research Institute Co., Ltd., Xi'an, China*
[View Digest Text](#)
- MOB-09. Electromagnetic Vibration Analysis of High Frequency Transformer under Inter-Turn Short Circuits.** *H. Ding*¹, *W. Zhao*¹, *C. Diao*¹ and *H. Zhao*² *1. School of Electrical Engineering, Shandong University, Jinan, China; 2. School of Electrical and Electronic Engineering, North China Electric Power University, Beijing, China*
[View Digest Text](#)
- MOB-10. A Structure Determination Method Based on High Frequency Skin Effect for Distribution Transformer Windings.** *B. Zhang*¹, *Z. Gong*¹ and *T. Dong*¹ *1. School of Electrical Engineering, Shenyang University of Technology, Shenyang, China*
[View Digest Text](#)
- MOB-11. A Topological Design Optimization Approach for Winding Oil Flow Paths in ONAN Transformers Based on a Fluidic-Thermal Coupled Model.** *L. Li*¹, *G. Zhu*^{1,3}, *Z. Wang*¹ and *S. Yang*² *1. School of Electrical Engineering, Tiangong University, Tianjin, China; 2. College of Electrical Engineering, Zhejiang University, Hangzhou, China; 3. Power Electronics, Machines and Control Group, University of Nottingham, Nottingham, United Kingdom*
[View Digest Text](#)

POSTER SESSION

Session MPA
HIGH FREQUENCY DEVICES & WIRELESS POWER TRANSMISSION II
(Poster Session)

Hiroaki Matsumori, Chair
Nagoya Institute of Technology, Aichi, Japan

- MPA-01. Modeling and Experimental Validation of Voltage Distribution in MFTs with Foil Windings.** *K. Iwai*¹, *S. Pourkeivannour*², *M. Curti*² and *E. Lomonova*²
1. Department of Electrical and Electronic Systems Engineering, Osaka Institute of Technology, Osaka, Japan; 2. Department of Electrical Engineering, Eindhoven University of Technology, Eindhoven, Netherlands
[View Digest Text](#)

- MPA-02. Micro-patterned wire wound chip inductor for GHz applications.** *R. Lamouri*¹, B. Nam¹, D. Kim¹, T. Song³, W. Kim² and K. Kim¹ *1. Physics, Yeungnam University, Gyeongsan, The Republic of Korea; 2. Smart Lighting Research Center, Korea Photonics Technology Institute, Gwangju, The Republic of Korea; 3. R&D Center, Point Engineering Inc., Hwaseong, The Republic of Korea*
[View Digest Text](#)
- MPA-03. Fundamental Study of Magnetic Particle Composite Core Made by Fused Deposition Modeling Method.** *S. Ikeda*¹, A. Honda¹ and N. Kita¹ *1. Department of Production Systems Engineering and Sciences, Komatsu University, Komatsu, Japan*
[View Digest Text](#)
- MPA-04. Study on Magnetic Properties of Toroidal Cores Composed by Electrolytic Iron Powder with Different Shapes.** *Y. Kodama*¹, M. Nguyen¹, T. Miyazaki² and Y. Endo^{1,3} *1. Graduate School of Engineering, Tohoku University, Sendai, Japan; 2. Faculty of Engineering, Tohoku University, Sendai, Japan; 3. Center for Science and Innovation in Spintronics, Tohoku University, Sendai, Japan*
[View Digest Text](#)
- MPA-05. Application of Magnetic Composite Materials in Windings to Reduce Alternating-Current Resistance in Leakage Transformers.** *K. Shimura*¹, S. Kobayashi¹, M. Sato¹ and T. Mizuno¹ *1. Shinshu University Faculty of Engineering, Nagano, Japan*
[View Digest Text](#)
- MPA-06. Fabrication of Planar Power Inductor for beyond 10 MHz Using Fe-based Composite Magnetic Core.** *R. Miyata*¹, S. Kimura¹, N. Kawada¹, T. Minamisawa¹, M. Sonehara¹, K. Miyaji¹ and T. Sato¹ *1. Electrical and Computer Engineering, Shinshu University, Nagano, Japan*
[View Digest Text](#)
- MPA-07. Impact of the Capacitance Cancellation on Attenuation Characteristic of Common-Mode Inductors Based on MnZn Ferrites.** *S. Takahashi*¹ and K. Wada² *1. Seikei University, Musashino, Japan; 2. Tokyo Metropolitan University, Hachioji, Japan*
[View Digest Text](#)
- MPA-08. A Data-Driven Inductor Modeling Technique Using Parametric Circuit Simulation and Deep Learning.** *T. Motomatsu*⁴, T. Koga¹, N. Shigei⁴, M. Yamaguchi², A. Itagaki³ and Y. Ishizuka¹ *1. Nagasaki University, Nagasaki, Japan; 2. Tohoku University, Sendai, Japan; 3. Ryowa Electronics Co., LTD, Sendai, Japan; 4. Kagoshima University, Kagoshima, Japan*
[View Digest Text](#)
- MPA-09. 3D Wireless Power Transfer System with Three-Phase Skewed Cylindrical Coil.** *H. Taga*¹, F. Tanaka¹, Y. Sato¹ and H. Matsumoto¹ *1. Aoyama Gakuin University, Sagamihara, Japan*
[View Digest Text](#)

- MPA-10. Metal Influence Suppression Method for Rotating Wireless Power Transfer System Based on Toroidal Double-D Coil.** *W. Yuan*¹, *X. Zhang*^{2,3} and *L. Sha*¹
1. Tiangong University, Tianjin, China; 2. State Key Laboratory of Reliability and Intelligence of Electrical Equipment, Hebei University of Technology, Tianjin, China; 3. Key Laboratory of Electromagnetic Field and Electrical Apparatus Reliability of Hebei Province, Hebei University of Technology, Tianjin, China
[View Digest Text](#)
- MPA-11. Ferrite Pads Gap Thermal-Magnetic Evaluation and Mitigation for 11.1-kW Wireless Power Transfer.** *X. Zhang*^{1,4}, *C. Hao*^{1,4}, *R. Dou*^{1,3}, *P. Zhang*^{2,4}, *Z. Yuan*^{1,4} and *Q. Yang*^{1,4}
1. State Key Laboratory of Reliability and Intelligence of Electrical Equipment, Hebei University of Technology, Tianjin, China; 2. Electrical Engineering, Tsinghua University, Beijing, China; 3. Electrical, Computer and Software Engineering, University of Auckland, Auckland, New Zealand; 4. Key Laboratory of Electromagnetic Field and Electrical Apparatus Reliability of Hebei Province, Hebei University of Technology, Tianjin, China
[View Digest Text](#)
- MPA-12. Propulsion and Control of Microrobot Using a Multiple Wireless Power Transfer Coil.** *D. Kim*¹
1. Department of Automotive Engineering, Yeungnam University, Gyeongsan, The Republic of Korea
[View Digest Text](#)
- MPA-13. Magnetic Analysis and Control of Three-Phase Wireless EV Charging System Based on Quasi Z-source NPC Inverter.** *Y. Liu*¹, *Z. Dong*¹, *S. Liu*¹, *B. Zhang*¹, *H. Wen*¹ and *C. Liu*¹
1. School of Energy and Environment, City University of Hong Kong, Hong Kong SAR, China
[View Digest Text](#)
- MPA-14. A Novel Hybrid Shielding Method with Single-Source Active Topology and Efficiency Stability for Wireless Power Transfer.** *X. Zhang*^{1,2}, *S. Liu*^{1,2}, *R. Dou*^{1,3}, *F. Wang*^{1,2}, *P. Zhang*⁴, *Z. Yuan*^{1,2} and *Q. Yang*^{1,2}
1. State Key Laboratory of Reliability and Intelligence of Electrical Equipment, Hebei University of Technology, Tianjin, China; 2. Key Laboratory of Electromagnetic Field and Electrical Apparatus Reliability of Hebei Province, Hebei University of Technology, Tianjin, China; 3. Electrical, Computer and Software Engineering, University of Auckland, Auckland, New Zealand; 4. Electrical Engineering, Tsinghua University, Beijing, China
[View Digest Text](#)

Session MPB
POWER APPARATUSES II
(Poster Session)

Yoshiki Hane, Chair
 Tohoku University, Sendai, Japan

- MPB-01. Electromagnetic Guideway System for Continuous Steel Plates (Fundamental Consideration on Vibration Characteristics from Damping Factor of Steel Plate).** R. Kano¹, T. Okubo¹, J. Kuroda¹, D. Uchino¹, K. Ogawa¹, K. Ikeda², T. Kato⁴, A. Endo³, H. Kato¹ and T. Narita¹
1. Engineering, Tokai University, Chofu-shi, Japan; 2. Mechanical Engineering, Hokkaido University of Science, Sapporo, Japan; 3. Electrical Engineering, Fukuoka Institute of Technology, Fukuoka, Japan; 4. Mechanical Engineering, Tokyo University of Technology, Hachioji, Japan
[View Digest Text](#)
- MPB-02. Withdrawn**
- MPB-03. Magnetic Characteristics of Thread-Type Cores with Round Steel Wires.** E. Jung¹, K. Seo² and I. Park¹
1. Sungkyunkwan University, Suwon-si, The Republic of Korea; 2. Seoul National University, Seoul, The Republic of Korea
[View Digest Text](#)
- MPB-04. Numerical Computation of Three-phase Enclosed GIL's Dynamic Electromagnetic Force Based on Field-Circuit Coupling Method.** S. Cheng¹, Y. Zhao¹, X. Yang¹ and J. Zhang² *1. Wuhan University, Wuhan, China; 2. University of Connecticut, Storrs, CT, United States*
[View Digest Text](#)
- MPB-05. Study on the Influence of Thermal Radiation on Temperature Characteristics of Current Transformer.** J. Yang¹, C. Liao¹, T. Li¹, K. Li¹, Z. Qiu¹ and Z. Huang¹
1. Nanchang University, Nanchang, China
[View Digest Text](#)
- MPB-06. Soft-Landing Mechanism Design Driven by Electromagnetic Repulsion Force with Application to Bypass Switch.** W. Yang¹, F. Meng¹, X. Huang¹ and G. Zhai¹
1. Harbin Institute of Technology, Harbin, China
[View Digest Text](#)
- MPB-07. Eddy-Current Reduction Structure of Copper Foil Winding for Medium-Frequency Transformer in DC-grid Applications.** N. Kurita¹ and Y. Tanaka² *1. Research & Development Group, Hitachi Ltd., Hitachi, Japan; 2. Energy Business Unit, Hitachi Ltd., Hitachi, Japan*
[View Digest Text](#)
- MPB-08. Withdrawn**

- MPB-09. Mechanical Vibration Analysis of Dry-Type Iron-Core Reactor Under Magnetostrictive, Maxwell and Lorentz Forces.** C. Liao¹, K. Li¹, Z. Qiu¹, J. Yang¹, T. Li¹ and Z. Jiang¹ *1. Department of Energy and Electrical Engineering, Nanchang University, Nanchang, China*
[View Digest Text](#)
- MPB-10. A novel analytic method of zero-sequence leakage flux under DC bias.** M. Zou¹ and Z. Wang¹ *1. School of Automation, Chongqing University of Posts and Telecommunications, Chongqing, China*
[View Digest Text](#)
- MPB-11. Electromagnetic Shield Design of 120 kA Pulse Inductor in Artificial Zero Crossing Circuit.** Z. Li¹, X. Bao¹, G. Gao² and H. Li² *1. Hefei University of Technology, Hefei, China; 2. Hefei Institutes of Physical Science, Hefei, China*
[View Digest Text](#)

ORAL SESSIONS

Session NOA

MAGNETIC LOGIC, DOMAIN WALL DEVICES, ENERGY-ASSISTED RECORDING

Taichi Goto, Co-Chair

Tohoku University, Sendai, Japan

Peng Li, Co-Chair

University of Science and Technology of China, Hefei, China

- NOA-01. Towards the geometrical control of domain wall dynamics in complex 3D nanostructures. (Invited)** S. Ruiz Gómez¹, P. Morales Fernandez¹, C. Fernandez Gonzalez¹, M. Foerster⁵, M. Angel⁵, A. Mandziak⁶, D. Wilgocka-Slezak⁶, E. Mlynczak⁶, M. Koenig¹, S. Seifert¹, L. Danesi⁴, C. Abert⁴, A. Hierro-Rodriguez³, A. Pacheco² and C. Donnelly¹ *1. Max Planck Institute for Chemical Physics of Solids, Dresden, Germany; 2. Instituto de Nanociencia y Materiales de Aragón, Zaragoza, Spain; 3. Universidad de Oviedo, Oviedo, Spain; 4. University of Vienna, Wien, Austria; 5. Alba Synchrotron, Barcelona, Spain; 6. National Centre for Synchrotron Radiation Solaris, Cracow, Poland*
[View Digest Text](#)
- NOA-02. Electric-field controlled spin logic device.** J. Hong^{1,2}, X. Li³, B. Yi³, L. You³, S. Zhang³ and H. Singh^{1,2}
1. University of California, Berkeley, Berkeley, CA, United States; 2. Hubei University of Technology, Wuhan, China; 3. Huazhong University of Science & Technology, Wuhan, China
[View Digest Text](#)
- NOA-03. A complete optomagnonic logic set.** A. Kolosvetov^{1,2} and A. Chernov^{1,2} *1. Moscow Institute of Physics and Technology (National Research University), Dolgoprudny, Russian Federation; 2. Russian Quantum Center, Moscow, Russian Federation*
[View Digest Text](#)

- NOA-04. Manipulating Excitations in Magnetic Complex Oxides. (Invited)** *L.M. Caretta*¹, *S. Kim*², *J. Analytis*³, *K. Lee*², *C. Ross*⁴, *G. Beach*⁴ and *R. Ramesh*³ *1. Brown University, Providence, RI, United States; 2. Korea Advanced Institute of Science and Technology (KAIST), Daejeon, The Republic of Korea; 3. Physics, University of California, Berkeley, Berkeley, CA, United States; 4. Materials Science and Engineering, Massachusetts Institute of Technology, Cambridge, MA, United States*
[View Digest Text](#)
- NOA-05. Targets and Challenges of Scaled Boolean Spintronic Circuits Based on Magnetic Tunnel Junction Transducers.** *F. Meng*^{1,2}, *S. Lee*³, *O. Zografos*¹, *M. Gupta*¹, *V. Nguyen*¹, *G. De Micheli*³, *S. Cotofana*⁴, *I. Asselberghs*¹, *C. Adelmann*¹, *G. Kar*¹, *S. Couet*¹ and *F. Ciubotaru*¹ *1. Imec, Leuven, Belgium; 2. KU Leuven, Leuven, Belgium; 3. Ecole Polytechnique Federale de Lausanne, Lausanne, Switzerland; 4. Delft University of Technology, Delft, Netherlands*
[View Digest Text](#)
- NOA-06. Energy-efficient optoelectronic domain-wall motion for logic computing.** *Z. Boyu*¹, *Y. Xu*¹, *D. Zhu*¹, *X.L. Lin*¹, *M. Hehn*², *G. Malinowski*², *W. Zhao*¹ and *S. Mangin*² *1. Beihang University, Beijing, China; 2. Institut Jean Lamour, Nancy, France*
[View Digest Text](#)
- NOA-07. Simultaneous determination of the Heisenberg exchange, thickness and saturation magnetization from the spin wave dispersion. (Invited)** *H. Nembach*^{1,2} *1. National Institute of Standards and Technology, Boulder, CO, United States; 2. University of Colorado, Boulder, CO, United States*
[View Digest Text](#)
- NOA-08. Impact of Curie Temperature Distribution and Anisotropy Field Distribution on the User Density of HAMR under Modest Thermal Gradient.** *K. Hosen*¹ and *R. Victora*¹ *1. Department of Electrical and Computer Engineering, University of Minnesota Twin Cities, Minneapolis, MN, United States*
[View Digest Text](#)
- NOA-09. Effect of film thickness on microwave assisted switching behavior.** *N. Kikuchi*¹, *K. Sato*¹, *M. Hatayama*¹, *T. Shimatsu*¹ and *S. Okamoto*¹ *1. Tohoku University, Sendai, Japan*
[View Digest Text](#)
- NOA-10. Ferrimagnet-ferromagnet phase transition in Mn_{4-x}Ga_xN epitaxial films by X-ray magnetic circular dichroism.** *A. Hatate*¹, *T. Komori*¹, *T. Yasuda*¹, *T. Horiuchi*¹, *K. Amemiya*², *K. Toko*¹ and *T. Suemasu*¹ *1. University of Tsukuba, Tsukuba, Japan; 2. KEK, Tsukuba, Japan*
[View Digest Text](#)

Session NOB
NEUROMORPHIC AND UNCONVENTIONAL
COMPUTING

Shunsuke Fukami, Co-Chair
 Tohoku University, Sendai, Japan

Carl Boone, Co-Chair
 Aerospace Corporation, Los Angeles, CA, United States

- NOB-01. Spintronic integrate-fire-reset neuron with stochasticity for neuromorphic computing. (Invited)** R. Mishra^{1,2}, Q. Yang², Y. Cen², G. Shi², R. Sharma², X. Fong² and H. Yang² *1. Centre for Applied Research in Electronics, Indian Institute of Technology Delhi, Delhi, India; 2. Electrical and Computer Engineering, National University of Singapore, Singapore*
[View Digest Text](#)
- NOB-02. A single magnetic tunnel junction for the implementation of a spiking neuron.** D. Rodrigues¹, R. Moukhader², A. Pontlevy², A. Hamadeh³, Z. Zeng⁴, M. Carpentieri¹ and G. Finocchio² *1. Department of Electrical and Information Engineering, Politecnico di Bari, Bari, Italy; 2. Department of Mathematical and Computer Sciences, Physical Sciences and Earth Sciences, University of Messina, Messina, Italy; 3. Fachbereich Physik, TU Kaiserslautern, Kaiserslautern, Germany; 4. Key Laboratory of Multifunctional Nanomaterials and Smart Systems, Suzhou Institute of Nano-Tech and Nano-Bionics, Jiangsu, China*
[View Digest Text](#)
- NOB-03. Weighted Spin Torque Nano-Oscillator System for Neuromorphic Computing.** T. Boehnert¹, Y. Rezaeiyan², M. Claro¹, L. Benetti¹, A. Jenkins¹, H. Farkhani², F. Moradi² and R. Ferreira¹ *1. Spintronics, International Iberian Nanotechnology Laboratory, Braga, Portugal; 2. Integrated Circuits and Electronics Laboratory, Aarhus University, Aarhus, Denmark*
[View Digest Text](#)
- NOB-04. Magnetization dynamics of dual free layer p-MTJ.** L. Farcis¹, B. Teixeira¹, P. Talatchian¹, D. Salomoni¹, U. Ebels¹, S. Auffret¹, B. Dieny¹, A. Mizrahi², J. Grollier², R. Sousa¹ and L.D. Buda-Prejbeanu¹ *1. CEA-SPINTEC, Grenoble, France; 2. Université Paris-Sud, CNRS/Thales, Palaiseau, France*
[View Digest Text](#)
- NOB-05. A semi-analytical model to simulate the spin-diode effect and accelerate its use in neuromorphic computing.** C. Chopin¹, L. Martins², L. Benetti², S. de Wergifosse¹, A. Jenkins², R. Ferreira² and F. Abreu Araujo¹ *1. UCLouvain, Louvain la Neuve, Belgium; 2. INL, Braga, Portugal*
[View Digest Text](#)

- NOB-06. A Spin Wave Time-Multiplexed Ising Machine. (Invited)** A. Litvinenko¹, R. Khymyn¹, V. Gonzalez¹, A. Awad¹, V. Tyberkevych², A.N. Slavin² and J. Åkerman¹
1. Department of Physics, University of Gothenburg, Gothenburg, Sweden; 2. Department of Physics, Oakland University, Rochester, MI, United States
[View Digest Text](#)
- NOB-07. Physical reservoir computing utilizing voltage controlled magnetic anisotropy effect.** T. Taniguchi¹, S. Tsunegi^{1,2} and Y. Utsumi³
1. Research Center for Emerging Computing Technologies, National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan; 2. JST-PRESTO, Saitama, Japan; 3. Mie University, Tsu, Japan
[View Digest Text](#)
- NOB-08. Using magnetic tunnel junctions as unconventional computing devices.** A. Grimaldi¹, L. Mazza², P. Tullio², D. Rodrigues², V. Crupi¹, M. Carpentieri², V. Puliafito² and G. Finocchio¹
1. Department of Mathematical and Computer Sciences, Physical Sciences and Earth Sciences, University of Messina, Messina, Italy; 2. Department of Electrical and Information Engineering, Polytechnic of Bari, Bari, Italy
[View Digest Text](#)
- NOB-09. Bipolar Coupling of Perpendicular Superparamagnetic Tunnel Junctions for Stochastic Unconventional Computing.** N. Phan¹, L. Soumah¹, A. Sidi El Valli¹, L. Anghel¹, M. Daniels², R. Sousa¹, J. Langer³, J. Wrona³, A. Madhavan^{2,4}, M.D. Stiles², U. Ebels¹ and P. Talatchian¹
1. SPINTEC, Univ. Grenoble Alpes, CEA, CNRS, Grenoble INP, Grenoble, France; 2. Physical Measurement Laboratory, National Institute of Standards and Technology, Gaithersburg, MD, United States; 3. Singulus Technologies AG, Kahl am Main, Germany; 4. Institute for Research in Electronics and Applied Physics, University of Maryland, College Park, MD, United States
[View Digest Text](#)
- NOB-10. Demonstration of Synaptic Behaviour in a Spintronic Device for On-Chip Learning in Long Short Term Memory (LSTM) Networks.** R. Yadav¹, P. Gupta¹, A. Sadashiva², P.K. Muduli¹ and D. Bhowmik²
1. Physics, Indian Institute of Technology Delhi, New Delhi, India; 2. Electrical Engineering, Indian Institute of Technology Bombay, Mumbai, India
[View Digest Text](#)
- NOB-11. Magnetic tunnel junction-based crossbars: improving neural network performance by reducing the impact of non-idealities.** W. Borders¹, N. Prasad^{1,2}, B.D. Hoskins¹, A. Madhavan³, M. Daniels¹, V. Georgiou⁴, T. Santos⁴, P.M. Braganca⁴, M.D. Stiles¹ and J.J. McClelland¹
1. Physical Measurement Laboratory, National Institute of Standards and Technology, Gaithersburg, MD, United States; 2. Department of Chemistry and Biochemistry, University of Maryland, College Park, MD, United States; 3. Institute for Research in Electronics and Applied Physics, University of Maryland, College Park, MD, United States; 4. Western Digital Research Center, Western Digital, San Jose, CA, United States
[View Digest Text](#)

- NOB-12. A Stochastic Computing Scheme Using Computational Random Access Memory (SC-CRAM).** *B. Zink¹, Y. Lv¹, M. Zabihi¹, H. Cilasun¹, S. Sapatnekar¹, U. Karpuzcu¹, M. Riedel¹ and J. Wang¹* *1. Electrical and Computer Engineering, University of Minnesota, Minneapolis, MN, United States*
[View Digest Text](#)
- NOB-13. Power-Aware Quantization Circuits in Analog In-Memory Computing with STT-MRAM Macro.** *M. Zhou¹, Y. Guo¹, J. Fu¹ and H. Cai¹* *1. Southeast University, Nanjing, China*
[View Digest Text](#)
- NOB-14. Physically Unclonable Function by Magneto-Optical Kerr Effect.** *J. Lee¹, J. Lee¹, S. Yoon¹, M. Lee¹, J. Lee², D. Kim³, S. Choe³, Y. Jang⁴, J. Park⁴ and Y. Kim¹* *1. Materials Science and Engineering, Korea University, Seoul, The Republic of Korea; 2. Semiconductor Systems Engineering, Korea University, Seoul, The Republic of Korea; 3. Physics and Astronomy, Seoul National University, Seoul, The Republic of Korea; 4. Electrical Engineering, Korea University, Seoul, The Republic of Korea*
[View Digest Text](#)

POSTER SESSION

Session NPA

ENERGY-ASSISTED RECORDING, DOMAIN WALL DEVICES, NEUROMORPHIC AND UNCONVENTIONAL COMPUTING (Poster Session)

Akinobu Yamaguchi, Co-Chair
University of Hyogo, Ako-gun, Japan

Michelle Jamer, Co-Chair
United States Naval Academy, Sterling, VA, United States

- NPA-01. Blocking phenomenon of hard/soft bilayer FePt grains in granular film.** *D. Isurugi¹, T. Saito¹, K. Tham³, T. Ogawa¹, Y. Tanaka², S. Greaves² and S. Saito¹* *1. Department of Electronic Engineering, Tohoku University, Sendai, Japan; 2. Research Institute of Electrical Communication, Tohoku University, Sendai, Japan; 3. Tanaka Kikinzoku Kogyo K. K., Tsukuba, Japan*
[View Digest Text](#)
- NPA-02. Effect of C replacement on magnetic properties and nanostructure of FePt-nitride granular film for HAMR media.** *K. Tham¹, R. Kushibiki¹ and S. Saito²* *1. Tanaka Kikinzoku Kogyo, Tsukuba, Japan; 2. Electronic Engineering, Tohoku University, Sendai, Japan*
[View Digest Text](#)
- NPA-03. Control of Information Flow in Arrays of Spin-Torque Oscillators.** *T. Ise¹, S. Greaves¹ and Y. Tanaka¹* *1. RIEC, Tohoku University, Sendai, Japan*
[View Digest Text](#)

- NPA-04. Atomistic Simulations on the Effects of Grain Size in HAMR.** *D.R. Papp¹, R.F. Evans¹ and R.W. Chantrell¹*
1. School of Physics, Engineering and Technology, University of York, York, United Kingdom
[View Digest Text](#)
- NPA-05. A multi-state memory device based on the manipulation of a single skyrmion using spin-polarized current.**
W.Z. Al Saeidi¹ *1. Physics, Sultan Qaboos University, Muscat, Oman*
[View Digest Text](#)
- NPA-06. Development of Ultra-Thin CoPt Films with Electrodeposition for Three-Dimensional Domain Wall Motion Memory.** *T. Huang¹, Y. Takamura¹, M. Saito², M.M. Hasan², S. Kasai³, Y. Sonobe² and S. Nakagawa¹*
1. Department of Electrical and Electronic Engineering, Tokyo Institute of Technology, Meguro, Japan; 2. Research Organization for Nano and Life Innovation, Waseda University, Shinjuku, Japan; 3. Research Center for Magnetic and Spintronic Materials, National Institute for Materials Science (NIMS), Tsukuba, Japan
[View Digest Text](#)
- NPA-07. Withdrawn**
- NPA-08. Investigations of Domain Wall Dynamics in Ladder Domain Wall Devices for Neuromorphic Computing.**
H. Rahaman¹, D. Kumar¹, M. Ramu¹, H.J. Chung², S. Lim² and S. Piramanayagam¹ *1. Nanyang Technological University, Singapore, Singapore; 2. Institute of Materials Research and Engineering, A*STAR, Singapore, Singapore*
[View Digest Text](#)
- NPA-09. Discrete Anomalous Hall Resistance-Based Quantized Convolutional Neural Network.** *A.H. Lone¹, X. Zou¹, H. Li¹, N. El-Atab¹ and H. Fariborzi¹* *1. CEMSE (Integrated Circuits and Systems Group), King Abdullah University of Science and Technology, Jeddah, Saudi Arabia*
[View Digest Text](#)
- NPA-10. Demonstration of Pavlov associative memory by implementation of rate coding using magnetic tunnel junction neurons.** *J. Jang¹ and W. Park¹* *1. Hanyang University, Seoul, The Republic of Korea*
[View Digest Text](#)
- NPA-11. Modelling in-device inference and classification of binary digits using nonlinear dynamics of spin Hall oscillator.**
J.R. Mohan¹, C. Yamanaka¹, R. Feng¹, A. Mathew¹, Y. Nakamura¹, R. Medwal², S. Gupta³, R. Rawat³ and Y. Fukuma^{1,4} *1. Department of Physics and Information Technology, Kyushu Institute of Technology, Iizuka, Japan; 2. Department of Physics, Indian Institute of Technology, Kanpur, India; 3. Natural Sciences and Science Education, National Institute of Education, Nanyang Technological University, Singapore, Singapore; 4. Research Center for Neuromorphic AI hardware, Kyushu Institute of Technology, Kitakyushu, Japan*
[View Digest Text](#)

- NPA-12. Antiferromagnetic Artificial Neuron Modeling of Biological Neural Networks.** *H. Bradley*¹, *L. Quach*², *S. Louis*³ and *V. Tyberkevych*¹ *1. Physics, Oakland University, Rochester, MI, United States; 2. Oakland University William Beaumont School of Medicine, Rochester, MI, United States; 3. Electrical and Computer Engineering, Oakland University, Rochester, MI, United States*
[View Digest Text](#)
- NPA-13. Stochastic Spin-Orbit Torque Switching in Magnetic Trilayers for True Random Number Generation.** *D. Han*¹, *G. Lee*², *J. Ryu*¹, *M. Kohda*³, *J. Nitta*³, *K. Kim*² and *B. Park*¹ *1. Department of Materials Science and Engineering, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, The Republic of Korea; 2. Department of Physics, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, The Republic of Korea; 3. Spintronics Research Network, Tohoku University, Sendai, Japan*
[View Digest Text](#)
- NPA-14. Computing-in-Memory with Enhanced STT-MRAM Readout Margin.** *S. Wang*¹ and *H. Cai*¹ *1. Southeast University, Nanjing, China*
[View Digest Text](#)
- NPA-15. Resistance-Sum Architecture for Voltage-Controlled SOT-MRAM Based Computing-in-Memory with Hybrid References.** *C. Xiao*¹, *Y. Ma*¹, *D. Jiang*¹, *G. Ji*¹, *H. Gu*¹, *Y. Zhang*¹, *J. Tang*¹, *H. Wu*¹ and *T. Nan*¹ *1. School of Integrated Circuits, Tsinghua University, Beijing, China*
[View Digest Text](#)
- NPA-16. A 4T2MTJ Bit-Cell Supporting Ultra-Low Power Read Operation and In-Situ 1-bit Multiplication.** *Z. Qiu*¹ and *H. Cai*¹ *1. Southeast University, Nanjing, China*
[View Digest Text](#)

ORAL SESSIONS

Session OOA

MAGNETIC RECORDING: MEDIA, HEADS & MODELS I

Simon Greaves, Chair

Tohoku University, Sendai, Japan

- OOA-01. Bias sputtering of granular L10-FePt film with hexagonal boron nitride grain boundaries.** *C. Xu*^{1,2}, *V. Bollapragada*^{1,2}, *D.E. Laughlin*^{1,3} and *J. Zhu*^{1,2} *1. Data Storage Systems Center, Carnegie Mellon University, Pittsburgh, PA, United States; 2. Electrical and Computer Engineering, Carnegie Mellon University, Pittsburgh, PA, United States; 3. Materials Science and Engineering, Carnegie Mellon University, Pittsburgh, PA, United States*
[View Digest Text](#)

- OOA-02. Data-driven optimization of FePt heat-assisted magnetic recording media accelerated by deep learning TEM image segmentation.** *N. Kulesh*¹, *A. Bolyachkin*², *I. Suzuki*¹, *Y. Takahashi*¹ and *H. Sepehri-Amin*¹ *1. Research Center for Magnetic and Spintronic Materials, National Institute for Materials Science, Tsukuba, Japan; 2. International Center for Young Scientists, National Institute for Materials Science, Tsukuba, Japan*
[View Digest Text](#)
- OOA-03. SNR Impact of Magnetic Capping Layer in Granular FePt-L10 Media.** *J. Zhu*¹, *L. Zhang*² and *K. Shimizu*² *1. Data Storage Systems Center, Carnegie Mellon University, Pittsburgh, PA, United States; 2. Resonac, Minato-ku, Japan*
[View Digest Text](#)
- OOA-04. Identification of Nonlinear Reader Distortion in Magnetic Recording.** *B. Valcu*¹, *R. Wood*² and *S. Granz*³ *1. Headway Technologies, Milpitas, CA, United States; 2. Washington State University, Pullman, WA, United States; 3. Seagate Technology, Bloomington, MN, United States*
[View Digest Text](#)
- OOA-05. An Adaptive Minimum-Frame-Error-Rate BCJR Detector for Magnetic Recording.** *Y. Zhang*¹, *S. Shi*² and *J.R. Barry*¹ *1. School of Electrical and Computer Engineering, Georgia Institute of Technology, Atlanta, GA, United States; 2. Western Digital, San Jose, CA, United States*
[View Digest Text](#)
- OOA-06. Flying Height Increase Problems on Heat Assisted Magnetic Recording.** *Y. Taniguchi*¹ and *Y. Aoki*¹ *1. Western Digital Technologies GK, Fujisawa, Japan*
[View Digest Text](#)
- OOA-07. A Hybrid Simulation for Smear Growth on HAMR Heads.** *R. Tom*¹, *Q. Cheng*¹ and *D.B. Bogy*¹ *1. Mechanical Engineering, University of California, Berkeley, Berkeley, CA, United States*
[View Digest Text](#)
- OOA-08. Mode hopping impact on NFT protrusion measurement in HAMR.** *A. Sakoguchi*¹, *M. Furukawa*¹, *S. Nishida*¹, *R. Nishikura*¹ and *K. Tasaka*¹ *1. Western Digital Technologies GK, Fujisawa, Japan*
[View Digest Text](#)

Session OOB

MRAM & RELATED DEVICES I

Randall Victora, Co-Chair

University of Minnesota, Minneapolis, MN, United States

Seiji Mitani, Co-Chair

National Institute for Materials Science, Tsukuba, Japan

- OOB-01. Perpendicular Magnetization Switching in Heusler Alloy Films.** *L. Ren*¹, *C. Zhou*², *L. Liu*³, *J. Chen*² and *K. Teo*¹
1. Department of Electrical and Computer Engineering, National University of Singapore, Singapore; 2. Department of Materials Science and Engineering, National University of Singapore, Singapore; 3. School of Physics and Astronomy, Shanghai Jiao Tong University, Shanghai, China
[View Digest Text](#)
- OOB-02. Integration of BiSb topological insulator and CoFeB/MgO with perpendicular magnetic anisotropy using an oxide interfacial layer for ultralow power spin-orbit torque magnetic memory.** *H. Ho*¹, *R. Zhang*¹, *T. Shirokura*¹, *S. Takahashi*², *Y. Hirayama*² and *H.N. Pham*¹
1. Electrical and Electric Engineering, Tokyo Institute of Technology, Tokyo, Japan; 2. Samsung Device Solutions R&D Japan, Samsung Japan Corporation, Yokohama, Japan
[View Digest Text](#)
- OOB-03. FePd Single Layer and Synthetic Antiferromagnet with Low Damping and Crystalline Perpendicular Magnetic Anisotropy on Amorphous Si/SiO₂ Wafers.** *D. Lyu*¹, *J.E. Shoup*², *D. Huang*¹, *X. Wang*¹, *D.B. Gopman*² and *J. Wang*¹
1. University of Minnesota, Minneapolis, MN, United States; 2. National Institute of Standards and Technology, Gaithersburg, MD, United States
[View Digest Text](#)
- OOB-04. Achieving Uniaxial In-Plane Magnetocrystalline Anisotropy to Enable Scalable SOT-MRAM Devices.** *S. Nallan*¹ and *J. Zhu*¹
1. Electrical and Computer Engineering, Carnegie Mellon University, Pittsburgh, PA, United States
[View Digest Text](#)
- OOB-05. High-performance Type-y Spin-Orbit Torque MRAM Devices.** *H. Zhang*¹, *S. Lu*¹, *K. Cao*¹, *H. Liu*² and *W. Zhao*¹
1. Beihang University, Beijing, China; 2. Truth Memory Tech. Corporation, Beijing, China
[View Digest Text](#)
- OOB-06. Spacer-Less Free-Layer for High-TMR Double Magnetic Tunnel Junction MRAM.** *R. Carpenter*¹, *S. Rao*¹, *M. Gama Monteiro*¹, *S. Van Beek*¹, *N. Jossart*¹, *S. Kundu*¹, *S. Houshmand Sharifi*¹ and *S. Couet*¹
1. Imec, Leuven, Belgium
[View Digest Text](#)

- OOB-07. Magnetic Random Access Memory: From Uniaxial to Unidirectional.** *D. Zhu¹, Z. Guo¹, A. Du¹, D. Xiong¹, R. Xiao¹, W. Cai¹, K. Shi¹, S. Peng¹, K. Cao¹, S. Lu¹, D. Zhu¹, G. Wang², H. Liu², Q. Leng¹ and W. Zhao¹* *1. Beihang University, Beijing, China; 2. Truth Memory Tech. Corporation, Beijing, China*
[View Digest Text](#)
- OOB-08. Impact of SOT & STT stress on MTJ degradation in SOT-MRAM.** *S. Van Beek¹, V. Kateel¹, K. Cai¹, N. Jossart¹, S. Rao¹ and S. Couet¹* *1. Imec, Heverlee, Belgium*
[View Digest Text](#)
- OOB-09. Importance of SAF Stability against Temperature and Magnetic Field in Automotive-Grade-1 STT-MRAM Wafer Electrical Testing.** *M. Hindenberg¹, J. Müller², C.A. Durner¹, T. Gurieva¹, H. Yoon², A. Titova², G. Wolf², Y. Otani² and M. Wagner-Reetz¹* *1. Fraunhofer Institute for Photonic Microsystems, Dresden, Germany; 2. GlobalFoundries, Dresden, Germany*
[View Digest Text](#)
- OOB-10. Dipolar core-shell cells with enhanced write speed and reduced cross-talk of perpendicular shape anisotropy MRAM.** *N. Caçoilo¹, R. Sousa¹, B. Dieny¹, L.D. Buda-Prejbeanu¹, O. Fruchart¹ and I. Prejbeanu¹* *1. CEA, CNRS, Grenoble-INP, SPINTEC, Université Grenoble Alpes, Grenoble, France*
[View Digest Text](#)
- OOB-11. Reduced Switching Current with a Light Metal in a Tri-Layer Spin-orbit Torque Device.** *Y. Wu¹, C. Cheng¹, Y. Lin¹, M. Chen² and Y. Tseng¹* *1. Materials Science & Engineering, National Yang Ming Chiao Tung University, Hsinchu, Taiwan; 2. Powerchip Semiconductor Manufacturing Corporation, Hsinchu, Taiwan*
[View Digest Text](#)
- OOB-12. Switching Field Distributions in MRAM Elements.** *W.J. Frost¹, G. Vallejo Fernandez¹, R. Carpenter², S. Couet² and K. O'Grady¹* *1. School of Physics, Engineering and Technology, University of York, York, United Kingdom; 2. Imec, Leuven, Belgium*
[View Digest Text](#)
- OOB-13. Pulse Shaping Strategies for Efficient Spin-Orbit Torque Switching of Magnetic Tunnel Junctions.** *M. Hoffmann¹, V. Krizakova¹, V. Kateel², K. Cai², S. Couet² and P. Gambardella¹* *1. Department of Materials, ETH Zurich, Zurich, Switzerland; 2. Imec, Leuven, Belgium*
[View Digest Text](#)
- OOB-14. Automated Characterization of Time-Resolved Switching Dynamics in MRAM Magnetic Tunnel Junctions Writing Operation.** *Q. Stainer¹, S. Lequeux¹, A. Bussiere¹, K. Garelo² and S. Salimy¹* *1. Hprobe, Eybens, France; 2. CEA-SPINTEC, Grenoble, France*
[View Digest Text](#)

OOB-15. Picosecond optical information storage in molecular-metal oxide interfaces. *M. Habib*^{1,2}, *M. Rogers*¹, *G. Teobaldi*³, *T. Moorsom*¹, *O. Johansson*⁴, *P.S. Keatley*⁵, *R. Hicken*⁵, *M. Valvidares*⁶, *P. Gargiani*⁶, *N. Alosaimi*¹, *E. Poli*³, *M. Ali*¹, *G. Burnell*¹, *B.J. Hickey*¹ and *O. Cespedes*¹ *1. Physics and Astronomy, University of Leeds, Leeds, United Kingdom; 2. Science, Engineering & Technology School, Khulna University, Khulna, Bangladesh; 3. Scientific Computing Department, Science & Technology Facilities Council UKRI, Didcot, United Kingdom; 4. EaStCHEM School of Chemistry, University of Edinburgh, Edinburgh, United Kingdom; 5. School of Physics, University of Exeter, Exeter, United Kingdom; 6. ALBA Synchrotron Light Source, Barcelona, Spain*
[View Digest Text](#)

OOB-16. Deep Learning-Based Adaptive Error-Correction Decoding for Spin-Torque Transfer Magnetic Random Access Memory (STT-MRAM). *X. Zhong*¹, *K. Cai*¹, *P. Kang*¹, *S. Guanghui*² and *B. Dai*³ *1. Science, Mathematics and Technology Cluster, Singapore University of Technology and Design, Singapore, Singapore; 2. State Key Lab of Integrated Services Networks, Xidian University, Xi'an, China; 3. School of Internet of Things, Nanjing University of Posts and Telecommunications, Nanjing, China*
[View Digest Text](#)

POSTER SESSION

Session OPA
**MAGNETIC RECORDING: MEDIA,
HEADS & MODELS II**
(Poster Session)

Takehiko Hamaguchi, Chair
Western Digital Technologies, San Jose, CA, United States

OPA-01. Challenge of Media Noise Suppression with Oxygen Control in Granular Structure for CoPtCr-Based Sputtered Tape towards 400 Gb/in². *J. Tachibana*¹, *H. Kobayashi*¹, *T. Sai*¹, *S. Kodama*¹, *T. Aizawa*¹, *A. Yamaguchi*¹ and *S. Saito*² *1. Tape Media Dept., Sony Storage Media Solutions Corporation, Tagajyo, Japan; 2. Department of Electronic Engineering, Graduate School of Engineering, Tohoku University, Sendai, Japan*
[View Digest Text](#)

OPA-02. Simulation Analysis of Thermal Decay and Read-Write Characteristics Depending on the Structure of Sputtered Tape Media. *I. Tagawa*¹, *S. Kodama*², *J. Tachibana*², *T. Aizawa*² and *M. Yamaga*² *1. Tohoku Institute of Technology, Sendai, Japan; 2. Sony Storage Media Solutions Corporation, Tagajyo, Japan*
[View Digest Text](#)

- OPA-03. A Study on Coding of Noise Model for Storage Channel Systems.** Y. Kurihara¹, M.Z. Ahmed², K. Urabe¹, M. Shirai¹ and R. Murakami¹ *1. National Institute of Technology (KOSEN), Niihama College, Niihama, Japan; 2. University of Plymouth, Plymouth, United Kingdom*
[View Digest Text](#)
- OPA-04. Multitrack Recording and Two-Stage Decoding Schemes for Heated Dot Magnetic Recording with Double-Layered Bit Patterned Media.** H. Saito¹ *1. School of Engineering, Kogakuin University, Tokyo, Japan*
[View Digest Text](#)
- OPA-05. Design of Non-Isolated Modulation Code with Minimum Hamming Distance of 3 for Bit-Patterned Media Recording Systems.** T.A. Nguyen¹ and J. Lee¹ *1. Soongsil University, Seoul, The Republic of Korea*
[View Digest Text](#)
- OPA-06. A Study on Accelerating SP Decoding by Neural Network in SMR System.** M. Nishikawa¹, Y. Nakamura¹, Y. Kanai² and Y. Okamoto¹ *1. Ehime University, Matsuyama, Japan; 2. Niigata Institute of Technology, Kashiwazaki, Japan*
[View Digest Text](#)
- OPA-07. Effect of Humidity on Head Smear Generation in Head-Assisted Magnetic Recording.** H. Tani¹, H. Kurafuji², N. Tagawa¹, S. Kawada¹, R. Lu¹ and S. Koganezawa¹ *1. Mechanical Engineering, Kansai University, Suita-shi, Japan; 2. Graduate School of Kansai University, Suita-shi, Japan*
[View Digest Text](#)
- OPA-08. Optical Traps: A Hidden Factor in HAMR Head-Disk Interface.** R. Tom¹, R. Smith², O. Ruiz² and Q. Dai² *1. Mechanical Engineering, University of California, Berkeley, Berkeley, CA, United States; 2. The CTO Office, Western Digital Technologies, San Jose, CA, United States*
[View Digest Text](#)
- OPA-09. Feasibility study of reduction in sound-pressure induced vibration in hard disk drives using an adaptive feed-forward control.** S. Koganezawa¹, K. Funai¹, H. Tani¹, R. Lu¹ and S. Kawada¹ *1. Kansai University, Suita, Japan*
[View Digest Text](#)

POSTER SESSION

Session OPB
MRAM & RELATED DEVICES II
(Poster Session)

Hiroaki Yoda, Chair
YODA-S, Inc., Tsukuba, Japan

- OPB-01. Withdrawn**

- OPB-02. Field-free spin-orbit torque switching in sub-100nm magnetic tunnel junctions based on IrMn/CoFeB structures.** *W. Li¹, Z. Liu¹, S. Peng¹, J. Lu¹, L. Jiahao¹, A. Du¹ and W. Zhao¹* *1. Beihang University, Beijing, China*
[View Digest Text](#)
- OPB-03. Current Induced Switching of Co/Pd Memory Layer in CPP-GMR with Perpendicularly Magnetized SAF Pinned Layer.** *D. Pan¹, D. Oshima¹ and T. Kato^{1,2}* *1. Electronics, Nagoya University, Nagoya, Japan; 2. Institute of Materials and Systems for Sustainability, Nagoya University, Nagoya, Japan*
[View Digest Text](#)
- OPB-04. Toward Low Soft Error Sensitivity and Latency Near Memory Computing with EB MRAM.** *Y.Y. Li¹, D. Zhu¹, W.S. Zhao¹, J.K. Wang¹ and Y. Zhang¹* *1. Beihang University, Beijing, China*
[View Digest Text](#)
- OPB-05. Dynamical switching properties and downsize scalability in perpendicular shape anisotropy MTJ.** *N. Caçoilo¹, B. Teixeira¹, R. Sousa¹, B. Dieny¹, L.D. Buda-Prejbeanu¹, O. Fruchart¹ and I. Prejbeanu¹* *1. CEA, CNRS, Grenoble-INP, SPINTEC, Université Grenoble Alpes, Grenoble, France*
[View Digest Text](#)
- OPB-06. A Novel Radiation Hardened Design of Magnetic Random Access Memory for Multi-Node Upset Tolerance.** *Z. Wang¹, Y. Wang² and H. Cai¹* *1. Southeast University, Nanjing, China; 2. Nanjing University of Aeronautics and Astronautics, Nanjing, China*
[View Digest Text](#)
- OPB-07. A Differential STT-MRAM Sensing Scheme with Magnetoresistance Boosted 4T-2M Bit-Cell.** *T. Shi¹ and H. Cai¹* *1. Southeast University, Nanjing, China*
[View Digest Text](#)
- OPB-08. Energy-Efficient STT-MRAM with Build-in-Self-Trimming After Test Writing Strategy.** *S. Liu¹ and H. Cai¹* *1. Southeast University, Nanjing, China*
[View Digest Text](#)
- OPB-09. MRAM-based spintronic physical unclonable function.** *J. Kang¹, D. Han¹, D. Koh¹, S. Ko¹, K. Lee⁴, J. Lee³, C. Park², J. Ahn², M. Yu², M. Pakala², S. Lee¹, J. Park⁴, K. Kim¹ and B. Park¹* *1. KAIST, Daejeon, The Republic of Korea; 2. Applied Materials, Santa Clara, CA, United States; 3. Hyundai Motor Company, Hwaseong, The Republic of Korea; 4. Korea University, Seoul, The Republic of Korea*
[View Digest Text](#)
- OPB-10. PAC Code Construction for Spin-Torque Transfer Magnetic Random Access Memory.** *B. Dai¹, Z. Mei², K. Cai³, L. Kong⁴ and X. Zhong³* *1. Nanjing University of Posts and Telecommunications, Nanjing, China; 2. Nanjing University of Science and Technology, Nanjing, China; 3. Singapore University of Technology and Design, Singapore, Singapore; 4. Jinling Institute of Technology, Nanjing, China*
[View Digest Text](#)

OPB-11. Ultrathin free-standing spintronic device based on spin-orbit torque. *M. Li¹, X. Xu¹, C. Li¹, Z. Zhu¹, K. Meng¹ and Y. Jiang²* *1. University of Science and Technology Beijing, Beijing, China; 2. Tiangong University, Tianjin, China*
[View Digest Text](#)

OPB-12. Nanoprobe based information processing: nanoprobe-electronics. *J. Hong^{1,3}, B. Yi², X. Li², R. Li² and L. You²* *1. UC Berkeley, Berkeley, CA, United States; 2. Huazhong University of Science & Technology, Wuhan, China; 3. Hubei University of Technology, Wuhan, China*
[View Digest Text](#)

ORAL SESSIONS

Session POA

HIGH FREQUENCY, MICROWAVE AND MILLIMETER WAVE MATERIALS AND DEVICES I

Nian Sun, Chair

Northeastern University, Boston, MA, United States

POA-01. Angular Dependent Auto-Oscillations by Spin-Transfer and Spin-Orbit Torques in Magnetic Tunnel Junctions. *W. Cai¹, A. Kumar², A. Du¹, K. Shi¹, R. Xiao¹, K. Cao¹, J. Yin¹, J. Åkerman² and W. Zhao¹* *1. Fert Beijing Institute, MIIT Key Laboratory of Spintronics, School of Integrated Circuit Science and Engineering, Beihang University, Beijing, China; 2. Department of Physics, University of Gothenburg, Gothenburg, Sweden*
[View Digest Text](#)

POA-02. Mutual Synchronization in Large Spin Hall Nano-Oscillator Chains. *A. Kumar¹, H. Fulara², R. Khymyn¹, M. Rajabali¹, X. Zhao¹, N. Behera¹, A. Awad¹ and J. Åkerman¹* *1. Physics Department, University of Gothenburg, Gothenburg, Sweden; 2. Physics, Indian Institute of Technology Roorkee, Roorkee, India*
[View Digest Text](#)

POA-03. Ultra-Fast Spectrum Analysis Using a Mutually Synchronized Chain of Spin Hall Nano-Oscillators. *P. Gupta¹, A. Litvinenko², A. Kumar², P.K. Muduli¹ and J. Åkerman²* *1. Department of Physics, IIT Delhi, New Delhi, India; 2. Physics, University of Gothenburg, Gothenburg, Sweden*
[View Digest Text](#)

POA-04. A Compact and Integrated Magnetic Coupler Design with Crosscoupling Elimination Utilizing LCC-LCC/S Compensation Network for Building Attached Photovoltaic Systems. *H. Wang¹, J. Sun¹ and K. Cheng¹* *1. Electrical Engineering, The Hong Kong Polytechnic University, Kowloon, Hong Kong*
[View Digest Text](#)

- POA-05. Sub-harmonic resonance in spintronic diodes.** *A. Grimaldi*¹, *E. Raimondo*¹, *A. Giordano*², *R. Tomasello*³, *M. Carpentieri*³ and *G. Finocchio*¹ *1. Department of Mathematical and Computer Sciences, Physical Sciences and Earth Sciences, University of Messina, Messina, Italy; 2. Department of Engineering, University of Messina, Messina, Italy; 3. Department of Electrical and Information Engineering, Polytechnic of Bari, Bari, Italy*
[View Digest Text](#)
- POA-06. Higher frequency permeability measurement by harmonic resonance cavity perturbation method.** *M. Yamaguchi*¹, *Y. Miyazawa*¹ and *T. Miura*² *1. New Industry Creation Hatchery Center, Tohoku University, Sendai, Japan; 2. The Müller Consultant, Sugunami, Japan*
[View Digest Text](#)
- POA-07. Optimization of Magnetic Coating for Improved Electromagnetic Wave Absorption in Bi-Layered Nano-Hollow Spheres.** *A. Gorai*¹ and *K. Mandal*¹ *1. Condensed Matter Physics and Material Sciences, Satyendra Nath Bose National Centre for Basic Sciences, Kolkata, India*
[View Digest Text](#)
- POA-08. Evaluation of Noise Suppression Sheet Embedded in Printed Circuit Boards.** *K. Chata'ni*¹, *T. Igarashi*¹ and *M. Ikeda*¹ *1. TOKIN Corporation, Sendai, Japan*
[View Digest Text](#)
- POA-09. Magnetic Properties of Soft Magnetic Powder/Epoxy Composite Sheet.** *H. Ooyama*^{1,2}, *N. Kawada*² and *T. Sato*² *1. Ajinomoto Fine-Techno Co., Inc., Kawasaki, Japan; 2. Shinshu University, Nagano, Japan*
[View Digest Text](#)
- POA-10. Estimation of Material Characteristics of Film-Type Noise Suppressor Using Equivalent Circuit Modeling and Genetic Algorithm.** *T. Mikami*¹, *S. Muroga*¹ and *M. Tanaka*¹ *1. Akita University, Akita city, Japan*
[View Digest Text](#)
- POA-11. High-Frequency Magnetic Properties of Nd₂Fe₁₇N₃ Magnetic Powders with Nano- α -Fe Phase-Separated Surface Layers.** *J. Akamatsu*¹, *S. Abe*¹ and *N. Imaoka*¹ *1. Magnet Material Development, Nichia Corporation, Anan, Japan*
[View Digest Text](#)
- POA-12. High-Frequency Magnetic Properties of Novel Sm–Mo–Fe Phosphate-Coated Fe–X (X = Ni and Mn) Magnetic Powder Cores.** *R. Okazaki*¹, *J. Nishitsuji*¹, *S. Abe*¹, *J. Akamatsu*¹, *N. Imaoka*¹, *M. Kume*¹, *Y. Kawakami*², *H. Hosokawa*² and *K. Ozaki*² *1. Magnet Material Development, Nichia Corporation, Anan, Japan; 2. Magnetic Powder Metallurgy Research Center, National Institute of Advanced Industrial Science and Technology (AIST), Nagoya, Japan*
[View Digest Text](#)

- POA-13. Microwave absorption properties of Fe/Fe₁₆N₂ nanoparticles prepared from iron oxide.** *S. Aja*¹, *M. Sato*¹, *M. Matsuura*¹ and *S. Sugimoto*¹ *1. Tohoku University, Sendai, Japan*
[View Digest Text](#)
- POA-14. Electromagnetic Field Analysis on Ringing Phenomenon of Inductor Driven by Inverter Considering Stray Capacitance.** *X. Hou*¹, *K. Kawai*¹, *H. Dozono*¹, *K. Muramatsu*¹, *N. Ogishima*², *N. Thao*², *K. Fujisaki*², *Y. Gao*³, *W. Guan*⁴, *C. Tian*⁴, *J. Yuan*⁴ and *B. Chen*⁴
1. Department of Electrical and Electronic Engineering, Saga University, Saga, Japan; 2. Electromagnetic Energy System Laboratory, Toyota Technological Institute, Nagoya, Japan; 3. Division of Mechatronics, Oita University, Oita, Japan; 4. School of Electrical Engineering and Automation, Wuhan University, Wuhan, China
[View Digest Text](#)
- POA-15. Development of Millimeter-Wave Absorber Based on ε-Iron Oxide.** *A. Namai*¹, *R. Kinugawa*¹, *M. Yoshikiyo*¹ and *S. Ohkoshi*¹ *1. The University of Tokyo, Tokyo, Japan*
[View Digest Text](#)

ORAL SESSIONS

Session POB

MAGNETIC FIELD SENSORS (NON-RECORDING) I

Benjamin Spetzler, Chair

Technische Universität Ilmenau, Ilmenau, Germany

- POB-01. Development of Optically Pumped Magnetometers towards Next Generation Biomagnetic Neuroimaging.** *(Invited) T. Kobayashi*¹ *1. Open Innovation Institute, Kyoto University, Kyoto, Japan*
[View Digest Text](#)
- POB-02. Spin-Dependent Photocarrier Generation Dynamics in Electrically Detected Nitrogen-Vacancy-Based Quantum Sensor.** *H. Morishita*^{1,2}, *N. Morioka*^{3,4}, *T. Nishikawa*³, *H. Yao*³, *S. Onoda*⁵, *H. Abe*⁵, *T. Ohshima*⁵ and *N. Mizuochi*^{3,4}
1. Center for Science and Innovation in Spintronics, Tohoku University, Sendai, Japan; 2. WPI Advanced Institute for Materials Research, Tohoku University, Sendai, Japan; 3. Institute for Chemical Research, Kyoto University, Uji, Japan; 4. Center for Spintronics Research Network, Institute for Chemical Research, Kyoto University, Uji, Japan; 5. National Institutes for Quantum Science and Technology, Takasaki, Japan
[View Digest Text](#)
- POB-03. Withdrawn**
- POB-04. Pulse Width Modulation Type Magnetoimpedance Sensor With Sub-mW Power Consumption.** *T. Uchiyama*¹
1. Graduate School of Engineering, Nagoya University, Nagoya, Japan
[View Digest Text](#)

- POB-05. Symmetric resistance-field response and flux concentrator in tunnel magnetoresistance sensors for space applications.** S. Manceau^{1,2}, T. Brun^{1,2}, J. Fischer¹, C. Ducruet³, P. Sabon¹, C. Cavoit², G. Jannet², I. Prejbeanu¹, M. Kretzschmar² and C. Baraduc¹ *1. CEA-SPINTEC, Grenoble, France; 2. LPC2E, Orléans, France; 3. Crocus Technology, Grenoble, France*
[View Digest Text](#)
- POB-06. A Variable-Reluctance Based Wireless Sensing Module for Intraoral Pressure Measurement.** M. Kohli¹, C. Chen¹, L. Hsu^{2,3}, C.J. Yao³ and T. Chung^{1,4} *1. Department of Mechanical Engineering, National Yang Ming Chiao Tung University, Hsinchu, Taiwan; 2. Department of Dentistry, National Taiwan University Hospital Hsinchu Branch, Hsinchu, Taiwan; 3. Division of Orthodontics and Dentofacial Orthopedics, Dental Department, National Taiwan University Hospital, Taipei, Taipei, Taiwan; 4. International College of Semiconductor Technology, National Yang Ming Chiao Tung University, Hsinchu, Taiwan*
[View Digest Text](#)
- POB-07. High Resolution Enlarged Open-Bore Narrow-Band Magnetic Particle Imaging Based on Double-Layer Linear Scanning Structure.** S. Bai¹, T. Li¹, K. Li¹, P. Huang¹, Z. Du³, T. Yoshida² and M. Zhang⁴ *1. Shenyang University of Technology, Shenyang, China; 2. Kyushu University, Fukuoka, Japan; 3. Zhengzhou University of Light Industry, Zhengzhou, China; 4. China Medical University, Shenyang, China*
[View Digest Text](#)
- POB-08. Monotone Signal Localization Using Magnetoresistive Sensor Array for Low-Field Magnetic Particle Imaging.** S. Trisnanto¹, T. Kasajima², T. Shibuya² and Y. Takemura¹ *1. Electrical and Computer Engineering, Yokohama National University, Yokohama, Japan; 2. Technology and Intellectual Property HQ, TDK Corporation, Tokyo, Japan*
[View Digest Text](#)
- POB-09. Feasibility Investigation on Sinusoidal-Reluctance Rotor Contour in Variable Reluctance Resolver.** W. Mi¹, J. Yu¹, Z. Cai¹, H. Zhao², F. Zhao¹ and Y. Luo³ *1. School of Mechanical Engineering and Automation, Harbin Institute of Technology (Shenzhen), Shenzhen, China; 2. Robotics and Autonomous Systems Thrust, The Hong Kong University of Science and Technology (Guangzhou), Guangzhou, China; 3. School of Electrical and Electronic Engineering, Huazhong University of Science and Technology, Wuhan, China*
[View Digest Text](#)
- POB-10. Comparison of Fractional and Integral Slot Winding Configurations on the Position Error for a Conventional Wound-Rotor Resolver.** M. Onsal², Y. Demir² and M. Aydin¹ *1. Kocaeli University, Kocaeli, Turkey; 2. MDS Motor Ltd., Kocaeli, Turkey*
[View Digest Text](#)

- POB-11. Analysis of eddy current testing signals' frequency responses for conductivity-invariant crack sizing.** *W. Cheng*^{1,2} 1. NDE Center, Japan Power Engineering and Inspection Corporation, Yokohama, Japan; 2. Department of Quantum Science and Energy Engineering, Tohoku University, Sendai, Japan
[View Digest Text](#)

ORAL SESSIONS

Session POC

MAGNETIC FIELD SENSORS (NON-RECORDING) II

Lior Klein, Chair

Bar Ilan Institute of Nanotechnology and Advanced Materials,
Ramat Gan, Israel

- POC-01. Magnetic Noise Theory for Magnetoelastic Magnetic Field Sensors.** *E. Spetzler*¹, *B. Spetzler*² and *J. McCord*¹ 1. Institute for Material Science, Kiel University, Kiel, Germany; 2. Department of Electrical Engineering and Information Technology, Technical University Ilmenau, Ilmenau, Germany
[View Digest Text](#)
- POC-02. Millimeter-Sized, Ultra-Sensitive Planar Hall Effect Gradiometer.** *H. Nhalil*¹, *M. Schultz*¹, *S. Amrusi*², *A. Grosz*² and *L. Klein*¹ 1. Department of Physics, Institute of Nanotechnology and Advanced Materials, Bar Ilan University, Ramatgan, Israel; 2. Department of Electrical and Computer Engineering, Ben-Gurion University of the Negev, Beer-Sheva, Israel
[View Digest Text](#)
- POC-03. Fabrication of GMR Sensors with Antiphase Magnetization Modulation and Closed-Loop Operation.** *K. Komuro*¹, *D. Oshima*¹ and *T. Kato*² 1. Electronics, Nagoya University, Nagoya, Japan; 2. Institute of Materials and Systems for Sustainability, Nagoya University, Nagoya, Japan
[View Digest Text](#)
- POC-04. Low-Coercivity Perpendicular Spin Transfer Torque Magnetic Tunnel Junctions as Nanoscale Magnetic Sensors.** *H. Nicolas*¹, *R. Sousa*², *A. Mora-Hernández*², *I. Prejbeanu*², *L. Hebrard*¹, *J. Kammerer*¹ and *J. Pascal*^{3,4} 1. University of Strasbourg, Strasbourg, France; 2. French Atomic Energy and Alternative Energies Commission, Grenoble, France; 3. University of Applied Sciences, Muttenz, Switzerland; 4. Swiss Nanoscience Institute, Basel, Switzerland
[View Digest Text](#)

- POC-05. Optimization of Synthetic Antiferromagnetic Structures for Angular Sensors Operating in Saturation.** *P. Araujo*^{1,2}, *E. Paz*³, *S. Cardoso*^{1,2}, *D. Leitao*⁴ and *P. Freitas*^{1,3} *1. Instituto de Engenharia de Sistemas E Computadores – Microsistemas e Nanotecnologias (INESC MN), Lisboa, Portugal; 2. Instituto Superior Técnico, Universidade de Lisboa, Lisbon, Portugal; 3. International Iberian Nanotechnology Laboratory, Braga, Portugal; 4. Department of Applied Physics, Eindhoven University of Technology, Eindhoven, Netherlands*
[View Digest Text](#)
- POC-06. Improved Detectivity in Tunnel Magnetoresistance Sensors by Controlling Free Layer Thickness and Annealing Process.** *M. Manikketh*¹, *P.D. Kulkarni*¹, *T. Nakatani*¹, *H. Iwasaki*¹, *H. Suto*¹ and *Y. Sakuraba*¹ *1. National Institute for Materials Science (NIMS), Tsukuba, Japan*
[View Digest Text](#)
- POC-07. Optimisation of Exchange Bias for Automotive Sensors.** *A. Carter*¹, *S. Jaiswal*², *P. Campiglio*², *G. Vallejo Fernandez*¹ and *K. O’Grady*¹ *1. School of Physics, Engineering and Technology, University of York, York, United Kingdom; 2. Allegro MicroSystems, Chavanod, France*
[View Digest Text](#)
- POC-08. Spatial Resolution and Sensitivity of GMR Sensors with Magnetic Flux Concentrators Used for Magnetic Field Microscopes.** *A. Kikitsu*¹, *Y. Higashi*¹, *Y. Kurosaki*¹, *S. Shirotori*¹, *K. Suzuki*² and *Y. Terui*² *1. Toshiba Corporation, Kawasaki, Japan; 2. Toshiba Nanoanalysis, Yokohama, Japan*
[View Digest Text](#)
- POC-09. A novel comb-shaped magnetoresistive sensor with magnetic flux concentrators for improved sensitivity.** *P.D. Kulkarni*¹, *H. Iwasaki*¹ and *T. Nakatani*¹ *1. Research Center for Magnetic and Spintronic Materials, National Institute for Materials Science (NIMS), Tsukuba, Japan*
[View Digest Text](#)
- POC-10. AC Magnetic Field Modulation on Tunnel Magnetoresistance Sensors with Even-Function Resistance-Field Response.** *T. Nakatani*¹, *H. Suto*¹, *P.D. Kulkarni*¹, *H. Iwasaki*¹ and *Y. Sakuraba*¹ *1. National Institute for Materials Science (NIMS), Tsukuba, Japan*
[View Digest Text](#)
- POC-11. Experimental assessment of the performances of an anisotropic magnetoresistive sensor after exposure to strong magnetic fields.** *C. Vergne*^{1,2*}, *H. Nicolas*^{1,3}, *M. Madec*³, *S. Hemm*¹, *R. Guzman*² and *J. Pascal*¹ *1. Medical Engineering and Medical Informatics, University of Applied Sciences and Arts Northwestern, Muttenz, Switzerland; 2. Biomedical Engineering, University of Basel, Basel, Switzerland; 3. ICube-CNRS, University of Strasbourg, Strasbourg, France*
[View Digest Text](#)

- POC-12. Magnetic Hammer Testing with Tunnel Magnetoresistive Sensors.** *J. Ito*¹, *M. Al-Mahdawi*² and *M. Oogane*¹ 1. *Applied Physics, Tohoku University, Sendai, Japan*; 2. *CSIS, Tohoku University, Sendai, Japan*
[View Digest Text](#)

POSTER SESSION

Session PPA
APPLICATIONS TO “INTERNET OF THINGS” (IOT)
(Poster Session)

Jeff McCord, Chair
Kiel University, Kiel, Germany

- PPA-01. Multiband Periodic Metamaterial Antenna Design for Radar Sensor Application.** *A. Eroglu*¹ and *B. Chowdhury*¹
1. *ECE, North Carolina A&T State U, Greensboro, NC, United States*
[View Digest Text](#)
- PPA-02. An Inductive Power Transfer System with Multiple Receivers Utilizing Diverted Magnetic Field and Two Transmitters for IoT-level Automatic Catering Vehicles.** *H. Wang*¹, *J. Sun*¹ and *K. Cheng*¹ 1. *Electrical Engineering, The Hong Kong Polytechnic University, Kowloon, Hong Kong*
[View Digest Text](#)
- PPA-03. Unbiased Random Number Generation Using Injection-Locked Spin-Torque Nano-Oscillators.** *N. Phan*¹, *A. Sidi El Valli*¹, *N. Prasad*^{2,3}, *L. Anghel*¹, *A. Hakam*¹, *L. Benetti*⁴, *A. Madhavan*^{2,5}, *A. Jenkins*⁴, *R. Ferreira*⁴, *M.D. Stiles*², *U. Ebels*¹ and *P. Talatchian*¹ 1. *SPINTEC, Univ. Grenoble Alpes, CEA, CNRS, Grenoble INP, Grenoble, France*; 2. *Physical Measurement Laboratory, National Institute of Standards and Technology, Gaithersburg, MD, United States*; 3. *Department of Chemistry and Biochemistry, University of Maryland, College Park, MD, United States*; 4. *International Iberian Nanotechnology Laboratory, Braga, Portugal*; 5. *Institute for Research in Electronics and Applied Physics, University of Maryland, College Park, MD, United States*
[View Digest Text](#)
- PPA-04. Vehicle Detection Using 2-Axis MI Sensors Based on Moving Vehicle Magnetic Field Simulation.** *R. Yao*¹ and *T. Uchiyama*¹ 1. *Graduate School of Engineering, Nagoya University, Nagoya, Japan*
[View Digest Text](#)

Session PPB
HIGH FREQUENCY, MICROWAVE AND MILLIMETER
WAVE MATERIALS AND DEVICES II
(Poster Session)

Parisa Andalib, Chair
 Northeastern University, Boston, MA, United States

- PPB-01. Geometry Optimization of Split Ring Resonator for Terahertz Photon-Magnon Coupling.** *G. Baek¹, J. Park¹ and K. Kim¹* *1. Physics, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, The Republic of Korea*
[View Digest Text](#)
- PPB-02. Design of a Fully Printed Implantable Rectenna.** *Ú.d. Resende¹, J.L. Soares¹, S.T. Gonçalves¹ and I.V. Soares²* *1. Electrical Engineering, CEFET-MG, Belo Horizonte, Brazil; 2. Institut d'Electronique at des Technologies du Numérique, Université de Rennes 1, Rennes, France*
[View Digest Text](#)
- PPB-03. Application of Fe-based Alloy Powder to Noise Suppression Sheet for GHz-band.** *T. Igarashi¹, A. Urata¹ and M. Chiba¹* *1. Advanced Materials R&D, TOKIN Corporation, Sendai, Japan*
[View Digest Text](#)
- PPB-04. Magnetodielectric Material for VHF Antenna Devices Tunable by a Low DC Magnetic Field.** *A. Chevalier¹, H. Breiss¹, A. Hoesz¹ and J. Mattei¹* *1. Université de Bretagne Occidentale, Lab-STICC, UMR 6285, CNRS, Brest, France*
[View Digest Text](#)
- PPB-05. Development of a Measurement System for AC Magnetization Process in Several MHz.** *H. Tanaka¹, K. Mori¹, Y. Kanai¹, T. Mannen¹, T. Isobe¹, E. Kita¹ and H. Yanagihara¹* *1. University of Tsukuba, Tsukuba, Japan*
[View Digest Text](#)
- PPB-06. Electromagnetic wave shielding with low reflection of FeCoNi coated on cellulose paper in GHz frequency range.** *R. Lamouri¹, M. Gu¹, X. Su¹ and K. Kim¹* *1. Physics, Yeungnam University, Gyeongsan, The Republic of Korea*
[View Digest Text](#)
- PPB-07. An estimation method of magnetic coupling coefficient between two microstrip lines using machine learning of near field information.** *Y. Sato¹, S. Muroga¹, H. Kamozaawa¹ and M. Tanaka¹* *1. Graduate School of Engineering Science, Akita University, Akita, Japan*
[View Digest Text](#)
- PPB-08. Withdrawn**
- PPB-09. A study on high frequency characteristic and magnetic properties of various hexaferrites.** *M. Kim¹, K. Park¹ and J. Kim¹* *1. Material Science and Chemical Engineering, Hanyang University, Ansan, The Republic of Korea*
[View Digest Text](#)

- PPB-10. Millimeter Wave EMI Absorbing Materials Using Magnetic Loss of M-type Ferrites and Conductive Grid.** H. Lee¹, B. Park¹, S. Kwon¹, J. Choi¹, S. Lee¹, K. Kim², J. Kim³ and S. Lee¹ *1. Korea Institute of Materials Science, Changwon, The Republic of Korea; 2. Yeungnam University, Gyeongsan, The Republic of Korea; 3. Hanyang University, Ansan, The Republic of Korea*
[View Digest Text](#)
- PPB-11. Preparation of Fe-B/epoxy composite films by the LbL-assisted composite plating method using epoxy-coated Fe-B fine particles.** C. Masumoto¹, Y. Kumauchi¹, A. Yokoi², W.K. Tan², H. Muto^{2,1}, Y. Endo³ and N. Fujita^{1,2} *1. National Institute of Technology, Nara College, Yamatokoriyama, Japan; 2. Toyohashi University of Technology, Toyohashi, Japan; 3. Tohoku University, Sendai, Japan*
[View Digest Text](#)
- PPB-12. Microstructure of Nd₂Fe₁₇N₃ Magnetic Powder Surface with Nano- α -Fe Phases Separated Surface Layer.** S. Abe¹, J. Akamatsu¹ and N. Imaoka¹ *1. Magnet Material Development, Nichia Corporation, Anan, Japan*
[View Digest Text](#)
- PPB-13. Conformally Conical Coil Design in Wireless Power Transfer for Emerging Unmanned Electric Vessels.** H. Wang¹ and K. Cheng¹ *1. Electrical Engineering, The Hong Kong Polytechnic University, Kowloon, Hong Kong*
[View Digest Text](#)
- PPB-14. Analysis on New Electromagnetic Shielding Structure and Shielding Effectiveness of Electric Vehicle Wireless Charging System.** L. Zhu¹, Z. Tian², L. Zhu², X. Zhang³ and Q. Yang¹ *1. School of Electrical Engineering and Automation, Tianjin University of Technology, Tianjin, China; 2. Department of Electrical Engineering, Tiangong University, Tianjin, China; 3. State Key Laboratory of Reliability and Intelligence of Electrical Equipment, Hebei University of Technology, Tianjin, China*
[View Digest Text](#)

POSTER SESSION

Session PPC

**MAGNETIC FIELD SENSORS (NON-RECORDING) III
(Poster Session)**

Suko Bagus Trisnanto, Chair
Yokohama National University, Yokohama, Japan

- PPC-01. Wireless Inductive Displacement Sensor 3D Printed Using Additive Technology.** M.G. Kusic¹, K. Babković¹ and M. Damjanović¹ *1. Department of Power, Electronic and Telecommunication Engineering, Faculty of Technical Sciences, University of Novi Sad, Novi Sad, Serbia*
[View Digest Text](#)

- PPC-02. Detection of Metal Surface and Back Surface by Rectangular Wave Eddy Current Testing with Magneto Resistive Sensor.** *Z. Guo¹ and T. Sasayama¹ 1. Department of Electrical and Electrical Engineering, Kyushu University, Fukuoka, Japan*
[View Digest Text](#)
- PPC-03. Thickness Measurement of Nickel Plating on the Back Side Using a Combined Magnetic Field with AC of Two Different Frequencies.** *K. Kawada¹, S. Mio² and Y. Gotoh² 1. Graduate School of Engineering, Oita University, Oita, Japan; 2. Department of Innovative Engineering, Faculty of Science and Technology, Oita University, Oita, Japan*
[View Digest Text](#)
- PPC-04. Variable cross-section FeGa/quartz composite magnetic field sensor.** *D. Chen¹, Y. Wen¹, X. Yang¹, P. Li¹ and Y. Wang¹ 1. Shanghai Jiaotong University, Shanghai, China*
[View Digest Text](#)
- PPC-05. Dual Induction Eddy Current Probe for Vibration Noise Reduction.** *D. Kosaka¹, Y. Kumakura² and F. Kojima³ 1. Department of Electrical Engineering, Polytechnic University, Tokyo, Japan; 2. Tex Riken Co., Ltd., Nishinomiya-shi, Japan; 3. Kobe University, Kobe, Japan*
[View Digest Text](#)
- PPC-06. Circumferential localization of a crack in cylindrical ferromagnetic rods based on the Fourier coefficients of the radial directional magnetic flux leakage.** *K. Shiku¹, T. Nara¹ and Y. Gotoh² 1. Graduate School of Information Science and Technology, The University of Tokyo, Bunkyo-ku, Japan; 2. Innovative Engineering, Faculty of Science and Technology, Oita University, Oita, Japan*
[View Digest Text](#)
- PPC-07. Examination of Thinning Inspection Method for Ferromagnetic Steel Tubes Using Velocity Effect of Static Magnetic Field.** *M. Tohara¹ and Y. Gotoh² 1. Technical, Toa Non-Destructive Inspection Co., Ltd, Kitakyushu, Japan; 2. Oita University, Oita, Japan*
[View Digest Text](#)
- PPC-08. Withdrawn**
- PPC-09. Realization of Different Anisotropy Direction for Each Thin-film Magnetoimpedance Elements on the Same Substrate.** *H. Kikuchi¹, A. Ueno¹ and M. Tanii¹ 1. Iwate University, Morioka, Japan*
[View Digest Text](#)
- PPC-10. Development of a flexible sensor focusing on the excitation and search characteristics of planar coils.** *S. Yoshioka¹ and S. Yamamura¹ 1. National Institute of Technology (KOSEN), Toba College, Mie, Japan*
[View Digest Text](#)

- PPC-11. Frequency Characteristics Analysis of Remote Field Eddy Current Testing on Ferromagnetic Pipes.** *K. Komatsubara¹, Y. Gao¹, Y. Gotoh¹, W. Guan² and K. Muramatsu³* *1. Division of Mechatronics, Oita University, Oita, Japan; 2. Wuhan University, Wuhan, China; 3. Department of Electrical and Electronic Engineering, Saga University, Saga, Japan*
[View Digest Text](#)
- PPC-12. Estimation of Anomalous Portion in Gray Cast Iron Using Non-Contacting Electromagnetic Sensor.** *S. Mio¹, K. Kawada², Y. Okumura³ and Y. Gotoh¹* *1. Department of Innovative Engineering, Faculty of Science and Technology, Oita University, Oita, Japan; 2. Graduate School of Engineering, Oita University, Oita, Japan; 3. Research & Development Headquarters Materials & Castings Center Materials Analysis & Evaluation Team, KUBOTA Corporation, Sakai, Japan*
[View Digest Text](#)
- PPC-13. Non-contact measurement method for shrinkage cavity in spheroidal graphite cast iron using electromagnetic force vibration.** *S. Niwa¹, S. Shiota¹, K. Fujimoto², Y. Gao² and Y. Gotoh²* *1. Graduate School of Engineering, Oita University, Oita City, Japan; 2. Faculty of Science and Technology, Oita University, Oita City, Japan*
[View Digest Text](#)
- PPC-14. A Contactless Eddy Current Inductive Position Sensor with 4-Phase Rotor for Angular Displacement Detection.** *G. Ma¹, S. Fang¹, F. Zeng² and D. Xu¹* *1. Shanghai University, Shanghai, China; 2. Shanghai Zhiqiu Technology Co., LTD, Shanghai, China*
[View Digest Text](#)
- PPC-15. Magnetic Field Detection of Coplanar Line Type Thin Film Magnetic Field Sensor with Optimized Narrow Slits.** *R. Suzuki¹, M. Sakamoto¹, T. Ishihara¹, J. Honda¹ and S. Yabukami¹* *1. Engineering, Tohoku University, Sendai, Japan*
[View Digest Text](#)

POSTER SESSION

Session PPD
SENSORS (NOT OF MAGNETIC FIELDS)
(Poster Session)

Tomoya Nakatani, Chair
National Institute for Materials Science, Tsukuba, Japan

- PPD-01. Detection of a high frequency magnetic field using frequency mixing technique in the FM-OFG.** *I. Sasada¹*
1. Sasada Magnetics and Sensors Laboratory, Fukuoka, Japan
[View Digest Text](#)

- PPD-02. Magnetic Relaxation Effects on Magnetoelastic Resonance Sensors.** B. Sisniega Soriano¹, J. Gutiérrez^{1,2}, J. Barandiaran¹ and A. García-Arribas^{1,2} *1. Electricidad y Electrónica, Universidad del País Vasco (UPV/EHU), Leioa, Spain; 2. BCMaterials, Leioa, Spain*
[View Digest Text](#)
- PPD-03. A sub-micrometric spintronic-based accelerometer.** A. Meo¹, F. Garesci², D. Rodrigues¹, E. Raimondo³, V. Puliafito¹, V. Lopez-Dominguez⁴, P. Khalili⁴, M. Carpentieri¹ and G. Finocchio³ *1. Department of Electrical and Information Engineering, Politecnico of Bari, Bari, Italy; 2. Department of Engineering, University of Messina, Messina, Italy; 3. Department of Mathematical and Computer Sciences, Physical Sciences and Earth Sciences, University of Messina, Messina, Italy; 4. Department of Electrical and Computer Engineering, Northwestern University, Evanston, IL, United States*
[View Digest Text](#)
- PPD-04. Design of micro-defect detection system for lithium battery lug welding seam.** M.T. Li¹, B. Shi¹, X. Yue¹, P. Huang¹, X. Zhang¹ and Z. Liu¹ *1. School of Information Science and Engineering, Shenyang University of Technology, Shenyang, China*
[View Digest Text](#)
- PPD-05. Vibration-Based Heartbeat Detection Using a Magnetic Sensor.** H. Shen^{1,2}, X. Gu¹ and Y. Wu¹ *1. Electrical and Computer Engineering, National University of Singapore, Singapore; 2. National University of Singapore (Chong Qing) Research Institute, Chongqing, China*
[View Digest Text](#)
- PPD-06. Withdrawn**
- PPD-07. Magnetization State and Magnetic Structure of Wiegand Wire Evaluated by External Magnetic Field Measurement.** G. Sha^{1,2}, Y. Kita¹, H. Shigeta¹, T. Nakamura¹, C. Yang², Z. Song² and Y. Takemura¹ *1. Electrical and Computer Engineering, Yokohama National University, Yokohama, Japan; 2. School of Transportation Engineering, Nanjing Vocational University of Industry Technology, Nanjing, China*
[View Digest Text](#)
- PPD-08. Long Base-Line Axial Gradiometer Based on the Fundamental Mode Orthogonal Fluxgate.** I. Sasada¹ *1. Sasada Magnetism and Sensors Laboratory, Fukuoka, Japan*
[View Digest Text](#)
- PPD-09. Evaluation of Electrical Conduction Property at Conductive Shield Layer to Improve Performance of Magnetically Shielded Rooms.** S. Odawara¹, M. Sakakibara¹, K. Yoshimura² and Y. Gotoh² *1. Ohtama Co., Ltd., Inagi Tokyo, Japan; 2. Innovative Engineering, Faculty of Science and Technology, Oita University, Oita, Japan*
[View Digest Text](#)

Session QOA
MAGNETO-OPTIC, MAGNETOELASTIC AND
MAGNETOCALORIC MATERIALS I

Lei Bi, Chair
 University of Electronic Science and Technology of China,
 Chengdu, China

- QOA-01. RF Signal Processing with Magneto-Acoustic Devices.**
(Invited) P. Dhagat¹, V. Gokhale², A. Jander¹, B. Downey²,
 C. Rivard¹, S. Mack², D. Katzer², J. Roussos² and D. Meyer²
 1. School of Electrical Engineering and Computer Science,
 Oregon State University, Corvallis, OR, United States;
 2. Electronics Science and Technology Division, US Naval
 Research Laboratory, Washington, DC, United States
[View Digest Text](#)
- QOA-02. Magnetoelastic transducers for spin-wave generation.**
 D. Narducci^{1,2}, F. Ciubotaru¹, M. Geilen³, J. Balliet³,
 G. Talmelli^{1,4}, F. Vanderveken^{1,4}, B. Heinz³, B. Hillebrands³,
 J. De Boeck^{1,2}, I. Asselberghs¹, G. Kar¹, P. Pirro³, S. Couet¹
 and C. Adelmann¹ 1. Imec, Leuven, Belgium; 2. Department
 of Electrical Engineering, ESAT, KU Leuven, Leuven,
 Belgium; 3. TU Kaiserslautern, Kaiserslautern, Germany;
 4. Department of Material Engineering, MTM, KU Leuven,
 Leuven, Belgium
[View Digest Text](#)
- QOA-03. Magnetic tunable SAW based piezo-resonator for low magnetic field sensing application.** P. Kumar¹ and P. Kaur¹
 1. Physics, Indian Institute of Technology, Roorkee, India
[View Digest Text](#)
- QOA-04. Machine-learning-accelerated design of high-efficiency corrosion inhibitor for magnetic refrigeration.** Q. Zhao¹,
 K. Yan¹, K. Qiao¹, D. Zhang¹, H. Luo¹, X. Zheng¹ and
 H. Zhang¹ 1. University of Science and Technology Beijing,
 Beijing, China
[View Digest Text](#)
- QOA-05. Modifying magnetic interactions and hysteresis by introducing Mn in La(Fe,Si)₁₃.** B. Eggert¹, J. Lill¹,
 C. Pillich¹, A. Terwey¹, K. Skokov², F. Wilhelm³,
 A. Rogalev³, K. Ollefs¹, O. Gutfleisch², M. Gruner¹ and
 H. Wende¹ 1. Faculty of Physics and Center for
 Nanointegration Duisburg-Essen (CENIDE), University of
 Duisburg-Essen, Duisburg, Germany; 2. Functional
 Materials, Department of Material Science, TU Darmstadt,
 Darmstadt, Germany; 3. European Synchrotron Radiation
 Facility, Grenoble, France
[View Digest Text](#)
- QOA-06. Development of Magnetic Refrigeration Materials for Hydrogen Liquefaction Applications.** H. Sepehri-Amin¹,
 X. Tang¹, A. Bolyachkin¹, J. Lai¹, E. Dengina¹, N. Terada¹,
 T. Ohkubo¹ and K. Hono¹ 1. National Institute for Materials
 Science (NIMS), Tsukuba, Japan
[View Digest Text](#)

- QOA-07. Giant magnetocaloric effects of 2nd order phase transition utilized for liquefaction of hydrogen near 20 K.** *W. Liu*¹, *K. Skokov*¹, *T. Gottschall*², *A. Aubert*¹, *F. Scheibel*¹ and *O. Gutfleisch*¹ *1. Materials Science, TU Darmstadt, Darmstadt, Germany; 2. Dresden High Magnetic Field Laboratory, Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany*
[View Digest Text](#)
- QOA-08. Novel magnetocaloric composites with outstanding thermal conductivity and mechanical properties boosted by continuous Cu networks.** *X. Miao*¹, *C. Wang*¹, *T. Liao*², *S. Ju*², *J. Zha*¹, *W. Wang*¹, *F. Xu*¹ and *L. Caron*³ *1. Nanjing University of Science and Technology, Nanjing, China; 2. Shanghai Jiao Tong University, Shanghai, China; 3. Bielefeld University, Bielefeld, Germany*
[View Digest Text](#)
- QOA-09. Dissipation losses limiting first-order phase transition materials in cryogenic caloric cooling: A case study on all-d-metal Ni(-Co)-Mn-Ti Heusler alloys.** *B. Beckmann*^{1*}, *D. Koch*¹, *L. Pfeuffer*¹, *T. Gottschall*², *A. Taubel*¹, *E. Adabifiroozjaei*¹, *O. Miroshkina*³, *S. Riegg*¹, *T. Niehoff*², *N. Kani*¹, *M. Gruner*³, *L. Molina-Luna*¹, *K. Skokov*¹ and *O. Gutfleisch*¹ *1. Institute of Materials Science, Technical University of Darmstadt, Darmstadt, Germany; 2. Dresden High Magnetic Field Laboratory, Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany; 3. Faculty of Physics and Center for Nanointegration Duisburg-Essen, University of Duisburg-Essen, Duisburg, Germany*
[View Digest Text](#)
- QOA-10. Magnetic Properties of Co₂MnSi-Based Heusler Alloy Glass-Coated Microwires.** *M. Salaheldeen*^{1,2}, *V. Zhukova*^{1,3}, *P. Corte-Leon*^{1,3}, *M. Ipatov*^{4,5} and *A. Zhukov*^{6,3} *1. Dept. Polym. and Advanced Mater. and Dept. Appl. Phys., Universidad del Pais Vasco, San Sebastian, Spain; 2. Physics Department, Faculty of Science, Sohag University, Sohag, Egypt; 3. EHU Quantum Center, Universidad del Pais Vasco, San Sebastian, Spain; 4. Dept. Polym. and Advanced Mater, Universidad del Pais Vasco, San Sebastian, Spain; 5. Dept. Appl. Phys., Universidad del Pais Vasco, San Sebastian, Spain; 6. Dept. Polym. and Advanced Mater. and Dept. Appl. Phys., Universidad del Pais Vasco and Ikerbasque, San Sebastian, Spain*
[View Digest Text](#)
- QOA-11. Giant Magnetocaloric Effect by Low Magnetic Field Metamagnetic Transition in Eu₄Ga₈Ge₁₆ Compound.** *S. Cha*¹, *P. Rawat*¹, *J. Kim*¹, *J. Yun*¹ and *J. Rhyee*¹ *1. Physics, Kyung Hee University, Yongin-si, The Republic of Korea*
[View Digest Text](#)
- QOA-12. Large low field magnetocaloric effect in Laves phase intermetallic compounds R'_{0.33}Ho_{0.33}Er_{0.33}Al₂ (R' = Gd, Tb and Dy) and Gd_{0.33}Dy_{0.33}Ho_{0.33}Al₂.** *P. Jesla*¹, *A. Chelvane*² and *R. Nirmala*¹ *1. Physics, Indian Institute of Technology Madras, Chennai, India; 2. Defence Metallurgical Research Laboratory, Hyderabad, India*
[View Digest Text](#)

Session QOB
MAGNETO-OPTIC, MAGNETOELASTIC AND
MAGNETOCALORIC MATERIALS II

Lei Bi, Chair
 University of Electronic Science and Technology of China,
 Chengdu, China

QOB-01. Under pressure: probing the magnetoelastic coupling in magnetocaloric materials. (Invited) *L. Caron*^{1,2} 1. Faculty of Physics, Bielefeld University, Bielefeld, Germany; 2. Helmholtz-Zentrum Berlin, Berlin, Germany

[View Digest Text](#)

QOB-02. Magneto-optics of higher order in magnetization. (Invited) *J. Hamrle*¹ 1. Institute of Physics, Charles University in Prague, Prague, Czechia

[View Digest Text](#)

QOB-03. NV Center-Coupled Magnetoelastic Waves: Modelling and Experiment. *A. Jung*¹, *S. Margueron*², *A. Bartasyte*^{2,3} and *S. Salahuddin*¹ 1. EECS, University of California, Berkeley, Berkeley, CA, United States; 2. FEMTO-ST Institute, University of Bourgogne Franche-Comte, Besancon, France; 3. Institut Universitaire de France, Bescanon, France

[View Digest Text](#)

QOB-04. Withdrawn

QOB-05. Design of Microscale Magnetic Controls for Magnetic-Field Driven Actuation. *L. Cestarollo*^{1*}, *R. Cantu*², *K. Srinivasan*³ and *A. El-Ghazaly*³ 1. Materials Science and Engineering, Cornell University, Ithaca, NY, United States; 2. Mechanical Engineering, The University of Texas at Austin, Austin, TX, United States; 3. Electrical and Computer Engineering, Cornell University, Ithaca, NY, United States

[View Digest Text](#)

QOB-06. Efficient Modeling of Magneto-Elastic Media Using the Feedback Preisach Model. *A.A. Adly*^{1,2} 1. Elect. Power Engineering Dept., Cairo University, Giza, Egypt; 2. Egypt-Japan University of Science and Technology (E-JUST), New Borg El-Arab, Egypt

[View Digest Text](#)

QOB-07. Temperature Dependence of Magnetic Anisotropy and Domain Wall Width Tuning in a BaTiO₃(111)/CoFeB Heterostructure. *R. Hunt*¹, *K.J. Franke*¹, *P.S. Keatley*², *P. Shepley*¹ and *T.A. Moore*¹ 1. University of Leeds, Leeds, United Kingdom; 2. University of Exeter, Exeter, United Kingdom

[View Digest Text](#)

- QOB-08. Magnetostrictive Properties of Fe-Based Nanocrystalline Soft Magnetic Alloys with Ga Addition.** *K. Sano*¹, *T. Yamazaki*², *C. Oka*¹, *J. Sakurai*¹ and *S. Hata*¹
1. Department of Micro-Nano Systems Engineering, Nagoya University, Chikusa-ku, Nagoya, Japan; 2. Department of Materials Science and Technology, Tokyo University of Science, Katsushika-ku, Japan
[View Digest Text](#)
- QOB-09. Characterization and multiscale modeling of the magneto-elastic behavior of Galfenol.** *M. Domenjoud*², *A. Pecheux*^{2,3} and *L. Daniel*¹ *1. GeePs, Centralesupelec, Gif-sur-Yvette, France; 2. GeePs, University Paris-Saclay, Gif-sur-Yvette, France; 3. SATIE, ENS Paris-Saclay, Gif-sur-Yvette, France*
[View Digest Text](#)
- QOB-10. Development of Magneto-Optical Diffractive Deep Neural Network.** *H. Sakaguchi*¹, *T. Fujita*¹, *J. Zhang*¹, *S. Sumi*², *H. Awano*², *H. Nonaka*³ and *T. Ishibashi*¹ *1. Nagaoka University of Technology, Nagaoka, Japan; 2. Toyota Technological Institute, Toyota, Japan; 3. Aichi Institute of Technology, Toyota, Japan*
[View Digest Text](#)
- QOB-11. Faraday effects of magneto-dielectric nanogranular films with various particle shape.** *H. Kijima-Aoki*^{1,2}, *K. Ikeda*³, *N. Kobayashi*³, *M. Ohnuma*⁴, *Y. Honda*⁴ and *H. Masumoto*²
1. Department of Electrical Engineering, Tohoku University, Sendai, Japan; 2. Frontier Research Institute for Interdisciplinary Sciences, Tohoku University, Sendai, Japan; 3. Research Institute for Electromagnetic Materials, Tomiya, Japan; 4. Faculty of Engineering, Hokkaido University, Sapporo, Japan
[View Digest Text](#)
- QOB-12. Broadband Integrated Magneto-Optical Isolators on Silicon Nitride Platforms.** *W. Yan*¹, *D. Wu*¹, *Y. Yang*¹, *Z. Wei*¹, *J. Qin*¹, *L. Deng*¹ and *L. Bi*¹ *1. University of Electronic Science and Technology of China, Chengdu, China*
[View Digest Text](#)
- QOB-13. Magneto-optical properties of Ce:YIG annealed by laser in a vacuum.** *H. Miyashita*^{1,2}, *Y. Yoshihara*^{1,2}, *T. Koguchi*^{1,2}, *K. Mori*¹, *P. Lim*², *M. Inoue*¹, *K. Ishiyama*¹ and *T. Goto*¹
1. Tohoku University, Sendai, Japan; 2. Toyohashi University of Technology, Toyohashi, Japan
[View Digest Text](#)

Session QPA
MAGNETOCALORIC MATERIALS
(Poster Session)

Nicola Morley, Chair

University of Sheffield, Sheffield, United Kingdom

- QPA-01. Magnetic and magnetocaloric properties of arc-melted and melt-spun Laves phase intermetallic compound $TbNi_{1.5}Fe_{0.5}$.** *M.M. Prusty*¹, K. Tejaswi¹, A. Chelvane² and R. Nirmala¹ *1. Physics, Indian Institute of Technology Madras, Chennai, India; 2. Defence Metallurgical Research Laboratory, Hyderabad, India*
[View Digest Text](#)
- QPA-02. Withdrawn**
- QPA-03. Method of measuring thermal conductivity in a thin Co film.** *K. Tanabe*¹, A. Yagmur^{1,2} and H. Awano¹ *1. Toyota Technological Institute, Nagoya, Japan; 2. University of Leeds, Leeds, United Kingdom*
[View Digest Text](#)
- QPA-04. First Order Magnetic Transition and Magnetocaloric Properties of $Pr_{0.48}Sr_{0.52}MnO_3$: A Charge Ordered Perovskite.** *A.K. Saw*¹, J.P. Nunez², R.L. Hadimani² and V. Dayal¹ *1. Department of Physics, Maharaja Institute of Technology-Mysore, Mandya, India; 2. Department of Mechanical and Nuclear Engineering, Virginia Commonwealth University, Richmond, VA, United States*
[View Digest Text](#)
- QPA-05. Reactive single-step hot-pressing and magnetocaloric performance of polycrystalline $Fe_2Al_{1.15-x}B_2Ge_xGa_x$ ($x = 0, 0.05$) MAB phases.** *B. Beckmann*¹, T. El-Melegy², D. Koch¹, U. Wiedwald³, M. Farle³, F. Maccari¹, J. Snyder², K. Skokov¹, M. Barsoum² and O. Gutfleisch¹ *1. Institute of Materials Science, Technical University of Darmstadt, Darmstadt, Germany; 2. Department of Materials Science & Engineering, Drexel University, Philadelphia, PA, United States; 3. Faculty of Physics and Center for Nanointegration Duisburg-Essen, University Duisburg-Essen, Duisburg, Germany*
[View Digest Text](#)
- QPA-06. Fabrication and magneto-structural characterization of $Ni_{41.7}Mn_{47.8}Sn_{10.6}$ glass-coated microwires.** *M.d. Arreguin Hernandez*^{1,2}, M. Varga^{2,3}, A. Dzubinska², M. Reiffers⁴, T. Ryba⁵, J.L. Sanchez Llamazares^{1,6} and R. Varga^{2,5} *1. Instituto Potosino de Investigacion Cientifica y Tecnologica, San Luis Potosí, Mexico; 2. CPM-TIP, Kosice, Slovakia; 3. UPJS, Kosice, Slovakia; 4. University of Presov, Presov, Slovakia; 5. RVmagnetic, Kosice, Slovakia; 6. Universidad de Oviedo, Oviedo, Spain*
[View Digest Text](#)

- QPA-07. Large Magnetocaloric Effect of PrNi Compound at Liquid-hydrogen Temperatures.** Y. Gao¹, X. Zheng¹, H. Zhang¹, D. Wang^{1,2}, B. Jin¹, H. Liu¹, S. Zhen¹, J. Gao¹, Y. Pan¹, L. Xi³, S. Wang^{1,3} and B. Shen² *1. School of Materials Science and Engineering, University of Science and Technology Beijing, Beijing, China; 2. Beijing National Laboratory for Condensed Matter Physics, Institute of Physics, Chinese Academy of Sciences and University of Chinese Academy of Sciences, Beijing, China; 3. School of Materials Science and Engineering, Anhui University, Hefei, China*
[View Digest Text](#)
- QPA-08. Withdrawn**
- QPA-09. Entropy change and the magnetocaloric effect in R₂Cu₂Cd.** J. Caro Patiño¹ and N. Antunes de Oliveira¹
1. Instituto de Física, Universidade do Estado do Rio de Janeiro, Rio de Janeiro, Brazil
[View Digest Text](#)
- QPA-10. Withdrawn**
- QPA-11. Martensite transition and room temperature magnetocaloric effect in Ag doped Ni₅₀Mn₃₇In₁₃ alloy.** S. Sakhivel¹, K. Arun¹, U. Remya¹, S. Athul¹, A. Dzubinska², M. Reiffers³ and R. Nagalakshmi¹ *1. Physics, National Institute of Technology Tiruchirappalli, Tiruchirappalli, India; 2. Center for Progressive Materials-Technology and Innovation Park, University Pavol Josef Safarik, Kosice, Slovakia; 3. Faculty of Humanities and Natural Sciences, Presov University, Presov, Slovakia*
[View Digest Text](#)
- QPA-12. Tailoring thermal hysteresis and microstructure of Ni-Mn-based Heusler alloys for multicaloric cooling applications.** A. Taubel¹, L. Pfeuffer¹, F. Scheibel¹, N. Shayanfar¹, B. Beckmann¹, T. Gottschall², K. Skokov¹ and O. Gutfleisch¹ *1. Material Science, Technical University of Darmstadt, Darmstadt, Germany; 2. Dresden High Magnetic Field Laboratory, Helmholtz-Zentrum Dresden Rossendorf, Dresden, Germany*
[View Digest Text](#)
- QPA-13. Withdrawn**
- QPA-14. Study the Optimal Duty Cycle of a Coaxial Magnet for a Rotary Type Magnetic Refrigerator.** C. Lee¹, P. Cheng¹, K. Leou¹, C. Hsieh¹ and Y. Su¹ *1. Department of Engineering and System Science, National Tsing Hua University, Hsinchu, Taiwan*
[View Digest Text](#)
- QPA-15. Electronic Structure and Curie Temperature Change in Ti or Al Doped GdFeSi Compound.** R.D. Mukhachev¹, A. Lukoyanov^{1,2}, S. Platonov¹, A. Kuchin¹, A. Volegov^{2,1}, V. Gaviko^{1,2} and M. Yakovleva¹ *1. M.N. Miheev Institute of Metal Physics UB of RAS, Yekaterinburg, Russian Federation; 2. Ural Federal University named after B.N. Yeltsin, Yekaterinburg, Russian Federation*
[View Digest Text](#)

Session QPB
MAGNETO-OPTIC, MAGNETOELASTIC AND
MAGNETOCALORIC MATERIALS III
(Poster Session)

Taichi Goto, Co-Chair
 Tohoku University, Sendai, Japan
 Chen Zhang, Co-Chair
 Wuhan University, Wuhan, China

- QPB-01. Crystal and Magneto-optical Properties of 2 μm Thick Ce:YIG Grown on GGG substrate.** *Y. Yoshihara*^{1,2}, T. Koguchi^{1,2}, K. Mori¹, H. Miyashita^{1,2}, P. Lim², M. Inoue¹, K. Ishiyama¹ and T. Goto¹ *1. Research Institute of Electrical Communication, Tohoku University, Sendai, Japan; 2. Toyohashi University of Technology, Toyohashi, Japan*
[View Digest Text](#)
- QPB-02. Realization of large magneto-optical effect by diagonal permittivity change in epsilon-near-zero materials.** *K. Ikeda*¹, T. Liu², Y. Ota³, S. Iwamoto^{4,5} and N. Kobayashi¹ *1. Research Institute for Electromagnetic Materials, Tomiya, Japan; 2. Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences, Jilin, China; 3. Department of Applied Physics and Physico-Informatics, Keio University, Yokohama, Japan; 4. Research Center for Advanced Science and Technology, The University of Tokyo, Tokyo, Japan; 5. Institute for Nano Quantum Information Electronics and Institute of Industrial Science, The University of Tokyo, Tokyo, Japan*
[View Digest Text](#)
- QPB-03. Development of an Optical Probe Current Sensor for Local and Narrow Area Measurement Using Magnetic Domain Reversal in Bi-Substituted Rare-Earth Iron Garnet Crystal.** *S. Sue*^{1,2}, M. Miyamoto¹, T. Kubo¹, M. Sonehara² and T. Sato² *1. Research and Development Department, CITIZEN FINEDEVICE, Mityota, Japan; 2. Spin Device Technology Center, Shinshu University, Nagano, Japan*
[View Digest Text](#)
- QPB-04. Boron-induced magneto-optical Kerr spectra and dielectric tensors in ferrimagnetic antiperovskite thin films.** *H. Sakaguchi*¹, *S. Isogami*², M. Niimi¹ and T. Ishibashi² *1. Nagaoka University of Technology, Nagaoka, Japan; 2. National Institute for Materials Science (NIMS), Tsukuba, Japan*
[View Digest Text](#)
- QPB-05. Withdrawn**
- QPB-06. Evaluation of magnetic flux density change for vibration energy harvesting: comparison between direct and indirect measurements.** *T. Okada*¹, S. Fujieda¹, S. Seino¹ and T. Nakagawa¹ *1. Graduate School of Engineering, Osaka University, Suita, Japan*
[View Digest Text](#)

- QPB-07. Characterization of the Magnetostrictive and Elastic Properties of Polycrystalline Co₇₀Fe₃₀ Alloy.** *M. Watanabe*¹, *K. Urakawa*¹, *T. Kida*¹, *M. Kasuya*², *M. Chiba*³, *K. Kanie*³, *T. Tanno*⁴, *M. Abe*⁴, *S. Hashi*⁵, *K. Ishiyama*⁴ and *S. Suzuki*⁶
1. Tohoku Steel Co.,Ltd., Murata-machi, Japan; 2. Faculty of Production Systems Engineering and Sciences, Komatsu University, Komatsu, Japan; 3. Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Sendai, Japan; 4. Research Institute for Electrical Communication, Tohoku University, Sendai, Japan; 5. Faculty of Engineering, Tohoku Gakuin University, Sendai, Japan; 6. Micro System Integration Center, Tohoku University, Sendai, Japan
[View Digest Text](#)
- QPB-08. Toward quantitative evaluation of coupling between Kittel mode and surface acoustic wave resonator mode.** *H. Komiyama*¹, *K. Taga*¹, *R. Hisatomi*¹, *Y. Shiota*¹, *T. Moriyama*¹ and *T. Ono*¹ *1. Kyoto University, Uji, Japan*
[View Digest Text](#)
- QPB-09. Application of various materials with negative saturation magnetostriction to vibration power generation.** *T. Sugiyama*¹, *T. Okada*¹, *S. Fujieda*¹, *S. Seino*¹, *T. Nakagawa*¹, *Y. Ohishi*¹ and *H. Muta*¹ *1. Osaka University, Suita, Japan*
[View Digest Text](#)
- QPB-10. Study on Magnetic Properties of La-doped Fe-Ga Polycrystalline Films.** *R. Nishina*¹, *T. Miyazaki*¹ and *Y. Endo*^{2,3} *1. Faculty of Engineering, Tohoku University, Sendai, Japan; 2. Graduate School of Engineering, Tohoku University, Sendai, Japan; 3. Center for Science and Innovation in Spintronics, Tohoku University, Sendai, Japan*
[View Digest Text](#)
- QPB-11. Thermo-elastic Martensitic transformation in off-stoichiometric Co₂Fe_{0.5}Ti_{0.5}Si quaternary Heusler alloy thin films.** *M. Rahaman*¹, *L.A. Longchar*¹, *R. Joshi*², *R. Rawat*², *M. Raja*³, *S.N. Kaul*¹ and *S. S*¹ *1. School of Physics, University of Hyderabad, Hyderabad, India; 2. UGC - DAE Consortium for Scientific Research, Indore, India; 3. Advanced Magnetics Group, Defence Metallurgical Research Laboratory, Hyderabad, India*
[View Digest Text](#)
- QPB-12. Chemical order, unit cell volume, and spontaneous magnetization in vapor-quenched single crystalline Fe_{0.6}Al_{0.4} alloy thin film.** *K. Toyoki*¹, *D. Kitaguchi*¹, *Y. Shiratsuchi*¹ and *R. Nakatani*¹ *1. Osaka University, Suita, Japan*
[View Digest Text](#)
- QPB-13. Origin of Griffiths phase in nanocrystalline La_{0.4}(Ca_{0.5}Sr_{0.5})_{0.6}MnO₃.** *S. Saha*¹, *S. Bandyopadhyay*² and *I. Das*¹ *1. Condensed Matter Physics, Saha Institute of Nuclear Physics, Kolkata, India; 2. Department of Physics, University of Calcutta, Kolkata, India*
[View Digest Text](#)

QPB-14. Giant magnetocaloric effect in 2D transition-metal hydroxide nanosheets. P. Joshi¹, J. Mohapatra¹ and P. Liu¹
1. Department of Physics, University of Texas at Arlington, Arlington, TX, United States

[View Digest Text](#)

QPB-15. The Role of Heat Capacity Anomaly on the Magnetocaloric Effect. A. Kosogor^{1,2} and V.A. L'vov^{1,3}
1. Institute of Magnetism NASU and MESU, Kyiv, Ukraine;
2. Faculty of Physics, University of Vienna, Vienna, Austria;
3. Taras Shevchenko National University of Kyiv, Kyiv, Ukraine

[View Digest Text](#)

ORAL SESSIONS

Session ROA MAGNETOELECTRONIC MATERIALS AND PHENOMENA I

Oleksandr Pylypovskyi, Chair
Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany

ROA-01. Spin pumping with heavy metals, topological insulators and antiferromagnets. (Invited) S. Bedanta¹ *1. Physics, National Institute of Science Education and Research, Jatni, India*

[View Digest Text](#)

ROA-02. Microscopic origin behind the magnetic anisotropy modulation in the multiferroic composites.

A.M. Yatmeidhy¹ and Y. Gohda¹ 1. Tokyo Institute of Technology, Yokohama, Japan

[View Digest Text](#)

ROA-03. Control of Exchange Bias in HfO₂/Co via Magneto-ionic Motion. E. Niapos¹, J.A. Arregi¹, L. Čelko¹, V. Uhlir¹, E. Menéndez² and J. Sort^{2,3} *1. CEITEC BUT Brno University of Technology, Brno, Czechia; 2. Department of Physics, Universitat Autònoma de Barcelona, Barcelona, Spain; 3. Institució Catalana de Recerca i Estudis Avançats (ICREA), Barcelona, Spain*

[View Digest Text](#)

ROA-04. Magnetic Properties of Magnetoelectric Nanoparticles with Varying Core-Shell Ratios and Their Effects on In Vitro Neuron Stimulation. S. Chen¹, E. Zhang², B. Navarrete², Y. Akin², M. Abdel-Mottaleb³, M. Alberteris Campos², I. Smith³, P. Liang⁴ and S. Khizroev² *1. Chemical, Environmental, and Materials Engineering, University of Miami, Coral Gables, FL, United States; 2. Electrical and Computer Engineering, University of Miami, Coral Gables, FL, United States; 3. Biomedical Engineering, University of Miami, Coral Gables, FL, United States; 4. Cellular Nanomed Inc, Irvine, CA, United States*

[View Digest Text](#)

ROA-05. Operando XMCD and EXAFS spectroscopies for orbital control by reversible strain at Co₂FeSi/PMN-PT interface. J. Okabayashi¹, T. Usami², A.M. Yatmeidhy³, Y. Gohda³ and K. Hamaya² 1. UTokyo, Tokyo, Japan; 2. Osaka University, Osaka, Japan; 3. Tokyo Institute of Technology, Yokohama, Japan
[View Digest Text](#)

ROA-06. Growth and magnetoelectric effect of epitaxial Co₃Mn films on piezoelectric Pb(Mg_{1/3}Nb_{2/3})O₃-PbTiO₃(001). Y. Murakami¹, T. Usami², Y. Shiratsuchi^{3,2}, Y. Sanada¹, S. Yamada^{2,4}, R. Nakatani^{3,2} and K. Hamaya^{2,4} 1. Department of Systems Innovation, Graduate School of Engineering Science, Osaka University, Toyonaka, Japan; 2. Center for Spintronics Research Network, Graduate School of Engineering Science, Osaka University, Toyonaka, Japan; 3. Division of Materials and Manufacturing Science, Graduate School of Engineering, Osaka University, Suita, Japan; 4. Spintronics Research Network Division, Institute for Open and Transdisciplinary Research Initiatives, Osaka University, Suita, Japan
[View Digest Text](#)

ROA-07. Mechanical, electrical and optical control of magnetization reversals and spin dynamics in extrinsic multiferroics. M. Liparo^{1,2}, J. Jay¹, M. Dubreuil¹, A. Fessant¹, W. Jahjah¹, Y. Le Grand¹, C. Sheppard², A. Prinsloo², B. Warot-Fonrose³, G. Simon⁴, V. Vlaminc⁵, V.M. Castel⁵, L. Temdie-Kom⁵, G. Bourcin⁵, D. Spenato¹ and D.T. Dekadjevi^{1,2} 1. Physics, Laboratoire OPTIMAG - Université de Bretagne Occidentale, Brest, France; 2. Cr Research Group, Physics, University of Johannesburg, Johannesburg, South Africa; 3. CEMES CNRS-UPR 8011 Université de Toulouse, Toulouse, France; 4. Univ. of Brest, Service Général des Plateformes Technologiques, Service RMN-RPE, Brest, France; 5. IMT-Atlantique, Campus de Brest, Département Micro-Ondes, Technopole Brest-Iroise, Brest, France
[View Digest Text](#)

ORAL SESSIONS

Session ROB
MAGNETOELECTRONIC MATERIALS AND PHENOMENA II

Subhankar Bedanta, Chair
NISER, Bhubaneswar, Jatani, India

ROB-01. Magnetic domains and flexomagnetism in Cr₂O₃. (Invited) O. Pylypovskiy^{1,2} 1. Helmholtz-Zentrum Dresden-Rossendorf e.V., Dresden, Germany; 2. Kyiv Academic University, Kyiv, Ukraine
[View Digest Text](#)

ROB-02. Enhancement of multiferroic properties for BiFeO₃ films with Tb substitution. *T. Lin*¹, *H.W. Chang*², *C. Wang*³, *D. Wei*¹, *C. Tu*^{4,5} and *P. Chen*⁵ *1. National Taipei University of Technology, Taichung, Taiwan; 2. National Chung Cheng University, Chia-Yi, Taiwan; 3. Tunghai University, Taichung, Taiwan; 4. Fu Jen Catholic University, Taipei, Taiwan; 5. Ming Chi University of Technology, New Taipei City, Taiwan*
[View Digest Text](#)

ROB-03. Development of BiFeO₃-Based Multiferroic Thin Films with Excellent Magnetic Properties and Investigation of Their Etching Resistance for Magnetic Nano Device Applications. *S. Ratha*¹, *R. Suzuki*¹, *D. Yamamoto*¹, *K. Takeda*¹, *M. Kuppan*¹, *G. Egawa*¹ and *S. Yoshimura*¹
1. Graduate School of Engineering Science, Akita University, Akita, Japan
[View Digest Text](#)

ROB-04. Effect of B-site Substitution Element and Substitution Amount on Magnetic Properties in (Bi,La)(Fe_{1-y}M_y)O₃ (M = Co, Ni) Ferromagnetic and Ferroelectric Thin Films. *Y. Suzuki*¹, *T. Ozeki*¹, *G. Egawa*¹ and *S. Yoshimura*¹
1. Graduate School of Engineering Science, Akita University, Akita, Japan
[View Digest Text](#)

ROB-05. Multiferroic skyrmions in BiFeO₃. *Z. Li*¹, *T. Chirac*^{1,2}, *J. Tranchida*³, *V. Garcia*⁴, *S. Fusil*⁴, *J. Chauleau*¹ and *M. Viret*¹
1. SPEC, CEA Saclay, Gif-sur-Yvette, France; 2. Laboratoire Charles Coulomb, Université de Montpellier and CNRS, Montpellier, France; 3. CEA, St Paul Les Durance, France; 4. Unité Mixte de Physique CNRS, Palaiseau, France
[View Digest Text](#)

ROB-06. Withdrawn

ROB-07. Inductance and capacitance emerged from topological electromagnetism. *Y. Araki*¹ and *J. Ieda*¹ *1. Advanced Science Research Center, Japan Atomic Energy Agency, Tokai, Japan*
[View Digest Text](#)

ROB-08. Withdrawn

POSTER SESSION

Session RPA
MAGNETOELECTRONIC MATERIALS AND
PHENOMENA III
(Poster Session)
Lucas Caretta, Chair
Brown University, Providence, RI, United States

RPA-01. Enhanced tunneling electroresistance effect by interface engineering. *L. Jiang*¹, *Y. Zhu*¹, *B. Chi*¹ and *X. Han*¹
1. Institute of Physics, Chinese Academy of Sciences, Beijing, China
[View Digest Text](#)

- RPA-02. Nonlinear Optical and Multiferroic Properties of GFO-xAg with Magnetic Field.** T. Hsu¹, T. Han², S. Huang¹ and T. Su¹ *1. National Pingtung University, Pingtung, Taiwan; 2. National University of Kaohsiung, Kaohsiung, Taiwan*
[View Digest Text](#)
- RPA-03. Electric field modulation of spin-flop behaviors in Co/Ru/Co/PMN-PT(011) artificial multiferroic heterostructures.** Y. Hisada¹, S. Komori¹, K. Imura¹ and T. Taniyama¹
1. Department of Physics, Nagoya University, Nagoya, Japan
[View Digest Text](#)
- RPA-04. Tunnel-type magneto-electric effect in Co-SrF₂ nanogranular thin films influence of metal additives and theory.** C. Wang¹, N. Kobayashi², S. Ohnuma^{1,2} and H. Masumoto¹ *1. Frontier Research Institute for Interdisciplinary Sciences, Sendai, Japan; 2. Research Institute for Electromagnetic Materials, Tomiya, Japan*
[View Digest Text](#)
- RPA-05. Effect of Ar-N₂ sputtering gas on structure and TMD effect in Co-(Si-N) nanogranular films.** T. Uchiyama¹, Y. Cao¹, H. Kijima-Aoki³, K. Ikeda², N. Kobayashi², S. Ohnuma^{1,2} and H. Masumoto¹ *1. Frontier Research Institute for Interdisciplinary Science, Tohoku University, Sendai, Japan; 2. Research Institute for Electromagnetic Materials, Tomiya, Japan; 3. Department of Electrical Engineering, Tohoku University, Sendai, Japan*
[View Digest Text](#)
- RPA-06. Enhanced Multiferroic and Nonlinear Optical Properties of GaFeO₃ Incorporated in GaFeO₃-CoFe₂O₄ Nanocomposite.** T. Han¹, T. Hsu², Y. Wang¹, Y. Shih¹ and W. Zhuang¹ *1. Department of Applied Physics, National University of Kaohsiung, Kaohsiung, Taiwan; 2. Department of Applied Physics, National Pingtung University, Pingtung County, Taiwan*
[View Digest Text](#)
- RPA-07. Withdrawn**

ORAL SESSIONS

Session SOA ALL OPTICAL SWITCHING AND ULTRAFAST MAGNETISM

Clemens von Korff Schmising, Chair
Max Born Institut, Berlin, Germany

- SOA-01. Engineering materials for single pulse all-optical switching. (Invited)** Y. Xu¹, M. Hehn², G. Malinowski², J. Hohlfeld², J. Gorchon², L.D. Buda-Prejbeanu³, I. Prejbeanu³, R. Sousa¹, W. Zhao¹ and S. Mangin² *1. Beihang University, Beijing, China; 2. Université de Lorraine, Nancy, France; 3. Spintec, Université Grenoble Alpes, Grenoble, France*
[View Digest Text](#)

- SOA-02. All optical switching in transition metal synthetic ferrimagnetic multilayer systems with enhanced interlayer exchange coupling.** C.R. Sait¹, M. Dabrowski¹, J.N. Scott², W.R. Hendren², D.G. Newman¹, A. N/Diaye³, C. Klewe³, P. Shafer³, G. van der Laan⁴, P.S. Keatley¹, R.M. Bowman² and R. Hicken¹ *1. Physics, University of Exeter, Exeter, United Kingdom; 2. Mathematics and Physics, Queen's University Belfast, Belfast, United Kingdom; 3. Lawrence Berkeley National Laboratory, Berkeley, CA, United States; 4. Diamond Light Source Ltd, Didcot, United Kingdom*
[View Digest Text](#)
- SOA-03. All-optical switching in a 2D van der Waals magnet CrI₃.** M. Dabrowski¹, S. Guo¹, M. Strungaru², P.S. Keatley¹, F. Withers¹, E. Santos² and R. Hicken¹ *1. Physics and Astronomy, University of Exeter, Exeter, United Kingdom; 2. School of Physics and Astronomy, The University of Edinburgh, Edinburgh, United Kingdom*
[View Digest Text](#)
- SOA-04. Sub-picosecond magnetization reversal in fully ferromagnetic spin valves.** J. Igarashi¹, W. Zhang^{1,2}, Q. Remy^{1,3}, E. Díaz¹, J. Lin¹, J. Hohlfeld¹, M. Hehn¹, S. Mangin¹, J. Gorchon¹ and G. Malinowski¹ *1. Université de Lorraine, Nancy, France; 2. Beihang University, Hefei, China; 3. University of Cambridge, Cambridge, United Kingdom*
[View Digest Text](#)
- SOA-05. Application of all-optical switching for a high-speed optical memory. Proposed scheme of high-speed demultiplexing.** V. Zayets¹, I. Serdeha² and V. Grygoruk² *1. Platform Photonics Research Center, National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan; 2. Educational and Scientific Institute of High Technologies, Taras Shevchenko National University of Kyiv, Kyiv, Ukraine*
[View Digest Text](#)
- SOA-06. Femtosecond Laser Comb Driven Magnetoelastic Modes.** A. Chaurasiya¹, A. Awad¹, R. Khymyn¹ and J. Åkerman¹ *1. Department of Physics, University of Gothenburg, Gothenburg, Sweden*
[View Digest Text](#)
- SOA-07. Simulations of Magnetization Reversal in FM/AFM Bilayers With THz Frequency Pulses.** J. Hirst¹, S. Ruta¹, J. Jackson³, L. Petit³ and T. Ostler² *1. Materials & Engineering Research Institute, Sheffield Hallam University, Sheffield, United Kingdom; 2. University of Hull, Sheffield, United Kingdom; 3. Science and Technology Facilities Council, Daresbury, United Kingdom*
[View Digest Text](#)
- SOA-08. Withdrawn**
- SOA-09. Ultrafast time-resolved spectroscopy of spin precession by an asynchronous optical sampling based on a dual-comb system.** D. Nishikawa¹, K. Maezawa¹, S. Fujii¹, M. Okano² and S. Watanabe¹ *1. Physics, Keio University, Yokohama, Japan; 2. Communications Engineering, National Defense Academy, Yokosuka, Japan*
[View Digest Text](#)

Session SOB
**NEW APPROACHES IN COMPUTATIONAL
 MAGNETISM**

Thomas Schrefl, Chair

University for Continuing Education Krems, Wiener Neustadt, Austria

- SOB-01. Frequency Demultiplexing of Spin Waves by Inverse-designed Magnetization Patterns, Experimentally Realized by FIB Irradiation.** *M. Kiechle¹, A. Papp², L. Maucha², S. Mendisch¹, J. Greil¹, V. Ahrens¹, G. Csaba² and M. Becherer¹* *1. TUM School of Computation, Information and Technology, Technical University of Munich, Munich, Germany; 2. Faculty of Information Technology and Bionics, Pazmany Peter Catholic University, Budapest, Hungary*
[View Digest Text](#)
- SOB-02. Multiscale simulations of soft magnetic composites.** *A. Ducevic¹, F. Bruckner¹, C. Abert¹ and D. Suess¹* *1. Functional Materials, Universität Wien, Vienna, Austria*
[View Digest Text](#)
- SOB-03. Convolutional neural networks to predict properties of magnetic nanostructures.** *H. Oezelt¹, A. Kovacs^{1,2}, J. Fischbacher¹, L. Breth^{1,2}, M. Gusenbauer¹, Q. Ali^{1,2}, A. Kornell^{1,2}, S. Schaffer³, L. Exl^{3,4} and T. Schrefl^{1,2}* *1. Department for Integrated Sensor Systems, University of Continuing Education Krems, Wiener Neustadt, Austria; 2. Christian Doppler Laboratory for Magnet design through physics informed machine learning, Wiener Neustadt, Austria; 3. Research Platform MMM Mathematics-Magnetism-Materials Faculty of Mathematics, University of Vienna, Vienna, Austria; 4. Wolfgang Pauli Institute, Faculty of Mathematics, University of Vienna, Vienna, Austria*
[View Digest Text](#)
- SOB-04. A path integral method for numerical simulations of spin dynamics.** *T. Nussle¹ and J. Barker¹* *1. School of Physics and Astronomy, University of Leeds, Leeds, United Kingdom*
[View Digest Text](#)
- SOB-05. Longitudinal Spin Fluctuations in Atomistic Spin Models.** *D.R. Papp¹, R.F. Evans¹ and R.W. Chantrell¹* *1. School of Physics, Engineering and Technology, University of York, York, United Kingdom*
[View Digest Text](#)
- SOB-06. Transient retrograde motion of spin wave-driven skyrmions in magnetic nanotracks.** *L. Huang¹, G. Burnell¹ and C. Marrows¹* *1. Physics, University of Leeds, Leeds, United Kingdom*
[View Digest Text](#)

- SOB-07. Physics-Informed Neural Networks for Solving Two-Dimensional Magneto-Static Fields.** Z. Gong³, Y. Chu¹ and S. Yang² 1. *EEE, Imperial College London, London, United Kingdom*; 2. *College of Electrical Engineering, Zhejiang University, Hangzhou, China*; 3. *Beijing Research Institute, Zhejiang Lab, Beijing, China*
[View Digest Text](#)
- SOB-08. Data-driven approach for accelerating the simulations of the non-linear dynamics of vortex based spin-torque nano-oscillators.** F. Abreu Araujo¹, S. de Wergifosse¹ and C. Chopin¹ 1. *IMCN / BSMA, UCLouvain, Louvain-la-Neuve, Belgium*
[View Digest Text](#)
- SOB-09. Zero Point Effects on the Magnetocrystalline Anisotropy of Antiferromagnets.** R.A. Lawrence¹ and M.I. Probert¹ 1. *School of Physics, Engineering and Technology, University of York, York, United Kingdom*
[View Digest Text](#)

ORAL SESSIONS

Session SOC

NONLINEAR AND FUNDAMENTAL MAGNONICS PHENOMENA

Qi Wang, Co-Chair

Universitat Wien, Vienna, Austria

Santa Pile, Co-Chair

Johannes Kepler University Linz, Linz, Austria

- SOC-01. Switching Magnon Chirality in Artificial Ferrimagnet.** *(Invited)* Y. Meng¹ and H. Zhao¹ 1. *Beijing National Laboratory for Condensed Matter Physics, Institute of Physics, Chinese Academy of Sciences, Beijing, China*
[View Digest Text](#)
- SOC-02. Prediction and observation of virtual magnons in highly excited ferrimagnetics.** D.A. Bozhko¹, V.S. L'vov^{2,3}, A. Pomyalov³, A.A. Serga⁴ and B. Hillebrands⁴ 1. *Department of Physics and Energy Science, University of Colorado Colorado Springs, Colorado Springs, CO, United States*; 2. *Department of Complex Systems, Weizmann Institute of Science, Rehovot, Israel*; 3. *Department of Chemical and Biological Physics, Weizmann Institute of Science, Rehovot, Israel*; 4. *Fachbereich Physik and Landesforschungszentrum OPTIMAS, Rheinland-Pfälzische Technische Universität Kaiserslautern-Landau, Kaiserslautern, Germany*
[View Digest Text](#)

- SOC-03. Spin Wave Decoherence in the Presence of Dispersive Shock Waves.** *C.A. McEleney*², *R.E. Camley*¹ and *R. Macêdo*² *1. Center for Magnetism and Magnetic Materials, Department of Physics and Energy Science, University of Colorado at Colorado Springs, Colorado Springs, CO, United States; 2. James Watt School of Engineering, University of Glasgow, Glasgow, United Kingdom*
[View Digest Text](#)
- SOC-04. Nonlinear excitation of short-wavelength exchange spin waves in out-of-plane magnetized YIG nanowaveguides.** *Q. Wang*^{1,2}, *R.V. Verba*³, *B. Heinz*⁴, *M. Schneider*⁴, *O. Wojewoda*⁵, *K. Davidkova*⁵, *K. Levchenko*¹, *C. Dubs*⁶, *N.J. Mauser*^{2,7}, *M. Urbánek*⁵, *P. Pirro*⁴ and *A. Chumak*^{1,2} *1. Faculty of Physics, University of Vienna, Vienna, Austria; 2. Research Platform Mathematics-Magnetism-Materials, University of Vienna, Vienna, Austria; 3. Institute of Magnetism, Kyiv, Ukraine; 4. TU Kaiserslautern, Kaiserslautern, Germany; 5. CEITEC BUT, Brno University of Technology, Brno, Czechia; 6. INNOVENT e.V., Jena, Germany; 7. Faculty of Mathematics, University of Vienna, Vienna, Austria*
[View Digest Text](#)
- SOC-05. Numerical and Micromagnetic Investigation of a Significant Magnon-Magnon Interaction in Magnetic Insulator Bilayers.** *J. Liu*¹ and *Q. Shao*¹ *1. The Hong Kong University of Science and Technology, Hong Kong, Hong Kong*
[View Digest Text](#)
- SOC-06. Time-resolved state tomography for temporal evolution of nonlinear magnetization dynamics under parallel pumping.** *H. Shimizu*¹, *T. Hioki*^{2,1} and *E. Saitoh*^{1,2} *1. Applied physics, The University of Tokyo, Hongo, Bunkyo-ku, Japan; 2. Advanced Institute for Materials Research, Tohoku University, Sendai, Japan*
[View Digest Text](#)
- SOC-07. Non-linearities in Driven Spin-Wave Active Ring Oscillator.** *A. Mukhopadhyay*¹ and *A. Prabhakar*¹ *1. Department of Electrical Engineering, Indian Institute of Technology Madras, Chennai, India*
[View Digest Text](#)
- SOC-08. Micromagnetic simulations of magnon nonlinear interactions in a YIG disk magnetic vortex.** *S. Salama*^{1,2}, *M. Massouras*¹, *A. Anane*² and *J. Adam*¹ *1. Centre de Nanosciences et de Nanotechnologies, CNRS, Palaiseau, France; 2. Unite Mixte de Physique CNRS, Thales, Universite Paris Saclay, Palaiseau, France*
[View Digest Text](#)
- SOC-09. Goos-Hänchen effect for the inelastically scattered spin waves.** *K. Sobucki*¹, *J. Kharlan*^{1,2}, *R.V. Verba*², *I. Lyubchanskii*^{3,4}, *M. Krawczyk*¹ and *P. Gruszecki*¹ *1. Faculty of Physics, Adam Mickiewicz University, Poznan, Poland; 2. Institute of Magnetism, National Academy of Sciences of Ukraine, Kyiv, Ukraine; 3. Donetsk Institute for Physics and Engineering, National Academy of Sciences of Ukraine, Kyiv, Ukraine; 4. Faculty of Physics, V. N. Karazin Kharkiv National University, Kharkiv, Ukraine*
[View Digest Text](#)

- SOC-10. Quantified spin-wave symmetry in rectangular permalloy microstrips investigated using TR-STXM, FMR and Mumax3.** S. Pile¹, A. Ney¹, K. Lenz², R. Narkowicz², J. Lindner², S. Wintz³, J. Förster³, S. Mayr⁴ and M. Weigand⁵
1. Johannes Kepler University, Linz, Austria; 2. Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany; 3. Max Planck Institute for Intelligent Systems, Stuttgart, Germany; 4. Paul Scherrer Institut, Villigen PSI, Switzerland; 5. Helmholtz-Zentrum Berlin für Materialien und Energie, Berlin, Germany
[View Digest Text](#)
- SOC-11. Temperature Dependent Spin Gap in Multiferroic 2D-XY Antiferromagnet Ba₂CoGe₂O₇ Under Applied Magnetic Field.** R. Dutta^{1,2}, H. Thoma^{1,2}, B. Roessli⁸, V. Kocsis^{3,4}, Y. Tokunaga^{3,5}, Y. Taguchi³, Y. Tokura^{3,6}, I. Kézsmárki⁷ and V. Hutanu^{1,2}
1. RWTH Aachen University, IFK, Aachen, Germany; 2. MLZ, Forschungszentrum Julich, Garching, Germany; 3. RIKEN Center for Emergent Matter Science, Saitama, Japan; 4. Budapest University of Technology and Economics, Department of Physics, Budapest, Hungary; 5. University of Tokyo, Department of Advanced Materials Science, Kashiwa, Japan; 6. Department of Applied Physics, University of Tokyo, Quantum-Phase Electronics Center, Tokyo, Japan; 7. University of Augsburg, Department of Experimental Physics V, Augsburg, Germany; 8. Paul Scherrer Institut (PSI), Laboratory for Neutron Scattering and Imaging (LNS), Villigen, Switzerland
[View Digest Text](#)
- SOC-12. Distant Excitation of Spin-Waves - How Electromagnetic Cross-Talk Impacts on Hybrid Magnonic Devices.** J. Greil¹, M. Golibrzuch¹, M. Kiechle¹, A. Papp², G. Csaba² and M. Becherer¹
1. Technical University of Munich, Munich, Germany; 2. Pázmány Péter Catholic University, Budapest, Hungary
[View Digest Text](#)
- SOC-13. Ring-shaped multi-bandpass spin wave filter using YIG film.** T. Taniguchi^{1,2}, M. Lindner¹, C. Riedel¹ and C.H. Back¹
1. Physics, Technical University of Munich, Garching, Germany; 2. Tohoku University, Sendai, Japan
[View Digest Text](#)
- SOC-14. Theoretical demonstration of the electron spin wave filter in semiconductor two-dimensional electron gas.** K. Kikuchi¹, K. Nakajima¹, S. Karube¹, C. Zhang² and M. Kohda^{1,3}
1. Graduate School of Engineering, Tohoku University, Sendai, Japan; 2. The Frontier Research Institute for Interdisciplinary Sciences, Tohoku University, Sendai, Japan; 3. Center for Strategic and International Studies, Tohoku University, Sendai, Japan
[View Digest Text](#)

Session SOD
QUANTUM AND HYBRID MAGNONICS

Dmytro Bozhko, Chair
 University of Colorado Colorado Springs, Colorado Springs,
 CO, United States

- SOD-01. Coupling of terahertz light with nanometer-wavelength magnons. (Invited)** R. Salikhov¹, I. Ilyakov¹, L. Körber^{1,2}, A. Kákay¹, R. Gallardo³, A. Ponomaryov¹, J. Deinert¹, T. de Oliveira¹, K. Lenz¹, J. Fassbender^{1,2}, S. Bonetti^{5,6}, O. Hellwig^{1,4}, J. Lindner¹ and S. Kovalev¹ *1. Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany; 2. Fakultät Physik, Technische Universität Dresden, Dresden, Germany; 3. Departamento de Física, Universidad Técnica Federico Santa María, Valparaíso, Chile; 4. Institute of Physics, Chemnitz University of Technology, Dresden, Germany; 5. Department of Physics, Stockholm University, Stockholm, Sweden; 6. Department of Molecular Sciences and Nanosystems, Ca' Foscari University of Venice, Venice, Italy*
[View Digest Text](#)
- SOD-02. Measuring Spatially Resolved Phase of Nanoscale Spin Waves.** O. Wojewoda¹, F. Ligmajer¹, M. Hrtón¹, J. Klima², M. Dhankhar¹, K. Davidkova², M. Stano¹, J. Holobradek¹, J. Zlamal², T. Sikola^{2,1} and M. Urbánek^{1,2} *1. CEITEC, Brno University of Technology, Brno, Czechia; 2. Institute of Physical Engineering, Brno University of Technology, Brno, Czechia*
[View Digest Text](#)
- SOD-03. Brillouin Light Scattering Characterization of Voltage-Controlled Magnonic Waveguides via Magnetoelectric Coupling.** P. Che¹, J. Adam², S. Salama², A. Abdelsamie¹, V. Garcia¹, S. Fusil¹, K. Bouzehouane¹, A. Vecchiola¹, L. Iglesias¹, R. Lebrun¹, A. Barthelémy¹, M. Bibes¹, P. Bortolotti¹, A. Anane¹ and I. Boventer¹ *1. Unité Mixte de Physique, CNRS/Thales, Université Paris-Saclay, Palaiseau, France; 2. Centre de Nanosciences et de Nanotechnologies, CNRS, Université Paris-Saclay, Palaiseau, France*
[View Digest Text](#)
- SOD-04. Observation of Coupled Magnon-Phonon Mode Anticrossing in a Two-Port Surface Acoustic Wave Resonator.** Y. Hwang^{1,2}, J. Puebla², K. Kondou², K. Yamamoto³, S. Maekawa^{2,3} and Y. Otani^{1,2} *1. Institute for Solid State Physics, University of Tokyo, Chiba, Japan; 2. CEMS, RIKEN, Saitama, Japan; 3. Advanced Science Research Center, Japan Atomic Energy Agency, Tokai, Japan*
[View Digest Text](#)
- SOD-05. Electric control of magnon phase and magnonic Aharonov-Casher effect.** V.I. Vasyuchka¹, R. Serha², A.A. Serga¹ and B. Hillebrands¹ *1. Fachbereich Physik and Landesforschungszentrum OPTIMAS, Rheinland-Pfälzische Technische Universität Kaiserslautern-Landau, Kaiserslautern, Germany; 2. Faculty of Physics, University of Vienna, Vienna, Austria*
[View Digest Text](#)
- SOD-06. Withdrawn**

- SOD-07. Real-time Measurement of Coherent Energy Exchange in Remotely Coupled Hybrid Magnonic Resonators.** M. Song^{1,2}, T. Polakovic³, T.W. Cecil⁴, J.E. Pearson¹, R. Divan⁵, W. Pfaff⁶, W. Kwok¹, U. Welp¹, K. Kim², A. Hoffman⁷, V. Novosad¹ and Y. Li¹ 1. *Materials Science Division, Argonne National Laboratory, Lemont, IL, United States*; 2. *Department of Physics, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, The Republic of Korea*; 3. *Physics Division, Argonne National Laboratory, Lemont, IL, United States*; 4. *High Energy Physics Division, Argonne National Laboratory, Lemont, IL, United States*; 5. *Center for Nanoscale Materials, Argonne National Laboratory, Lemont, IL, United States*; 6. *Department of Physics, University of Illinois at Urbana-Champaign, Urbana, IL, United States*; 7. *Department of Materials Science and Engineering, University of Illinois at Urbana-Champaign, Urbana, IL, United States*
[View Digest Text](#)
- SOD-08. Influence of paramagnetic GGG substrate on YIG films at millikelvin temperatures.** R. Serha¹, A. Voronov¹, D. Schmoll¹, R.V. Verba², S. Koraltan¹, K. Davidkova³, B. Budinska¹, Q. Wang¹, O. Dobrovolskiy¹, M. Urbánek³, M. Lindner⁴, T. Reimann⁴, C. Dubs⁴, C. Abert¹, D. Suess¹, S. Knauer¹ and A. Chumak¹ 1. *Faculty of Physics, University of Vienna, Vienna, Austria*; 2. *Institute of Magnetism, Kyiv, Ukraine*; 3. *CEITEC BUT, Brno University of Technology, Brno, Czechia*; 4. *INNOVENT e.V. Technologieentwicklung, Jena, Germany*
[View Digest Text](#)
- SOD-09. Universal Set of Magnon-Mediated Quantum Gates.** C. Trevillian¹ and V. Tyberkevych¹ 1. *Physics, Oakland University, Rochester, MI, United States*
[View Digest Text](#)
- SOD-10. Inverse design in nanomagnonics.** Q. Wang^{1,2}, A. Chumak² and P. Pirro³ 1. *School of Physics, Huazhong University of Science and Technology, Wuhan, China*; 2. *Faculty of Physics, University of Vienna, Vienna, Austria*; 3. *Fachbereich Physik and Landesforschungszentrum OPTIMAS, Technische Universität Kaiserslautern, Kaiserslautern, Germany*
[View Digest Text](#)
- SOD-11. Nano-scale physical reservoir computing based on propagating spin-wave.** S. Iihama^{1,2}, Y. Koike^{3,2}, S. Mizukami^{2,4} and N. Yoshinaga^{2,5} 1. *Frontier Research Institute for Interdisciplinary Sciences, Tohoku University, Sendai, Japan*; 2. *WPI Advanced Institute for Materials Research, Tohoku University, Sendai, Japan*; 3. *Department of Applied Physics, Tohoku University, Sendai, Japan*; 4. *Center for Science and Innovation in Spintronics, Tohoku University, Sendai, Japan*; 5. *MathAM-OIL, AIST, Sendai, Japan*
[View Digest Text](#)
- SOD-12. Model of a Magnetic Waveguide for a Neural Network.** A.A. Nikitin¹ and E. Lähderanta¹ 1. *Physics, Lappeenranta-Lahti University of Technology LUT, Lappeenranta, Finland*
[View Digest Text](#)

- SOD-13. Spin diode effect in extended magnetic insulating films.** R. Kohno¹, N. Thiery¹, E. Clot¹, R. Schlitz², K. An^{1,3}, V. Naletov¹, L. Vila¹, N. Beaulieu⁴, J. Ben Youssef⁴, H. Merbouche⁵, V. Cros⁵, A. Anane⁵, T. Hauet⁶, V.E. Demidov⁷, S. Demokritov⁷, G. de Loubens⁸ and O. Klein¹ *1. Université Grenoble Alpes, CEA, CNRS, Grenoble INP, Spintec, Grenoble, France; 2. Department of Materials, ETH Zürich, Zürich, Switzerland; 3. Korea Research Institute of Standards and Science, Daejeon, The Republic of Korea; 4. LabSTICC, CNRS, Université de Bretagne Occidentale, Brest, France; 5. Unité Mixte de Physique CNRS, Thales, Université Paris Saclay, Palaiseau, France; 6. Université de Lorraine, CNRS Institut Jean Lamour, Nancy, France; 7. Department of Physics, University of Muenster, Muenster, Germany; 8. SPEC, CEA-Saclay, CNRS, Université Paris Saclay, Gif-sur-Yvette, France*
[View Digest Text](#)

ORAL SESSIONS

Session SOE

TOPOLOGICAL AND 3D MAGNONICS

Sebastian Wintz, Chair

Max Planck Institute for Intelligent Systems, Stuttgart, Germany

- SOE-01. Spin-Wave Dynamics in Ferromagnetic Gyroid Nanostructures.** M. Golebiewski¹, R. Hertel², V.I. Vasyuchka³, P. Pirro³, M. Krawczyk¹ and J. Llandro⁴
1. Faculty of Physics, Adam Mickiewicz University, Poznan, Poland; 2. Strasbourg Institute of Material Physics and Chemistry, University of Strasbourg, CNRS, Strasbourg, France; 3. Faculty of Physics, TU Kaiserslautern, Kaiserslautern, Germany; 4. Research Institute of Electrical Communication, Center for Science and Innovation in Spintronics, Center for Innovative Integrated Electronic Systems, Tohoku University, Sendai, Japan
[View Digest Text](#)
- SOE-02. Tuning spin-wave dynamics by interlayer coupling within the nanomagnets of an artificial spin-ice.** J. de Rojas¹, D. Atkinson¹ and A.O. Adeyeye¹ *1. Physics, Durham University, Durham, United Kingdom*
[View Digest Text](#)
- SOE-03. Reconfigurable spin-wave dispersion in continuous magnetic layer induced via artificial spin ice based magnonic crystal.** T.C. Dion², J. Carter-Gartside¹, K.D. Stenning³, A. Vanstone¹, D. Arroo^{3,1}, H. Kurebayashi³, W.R. Branford¹ and T. Kimura² *1. Blackett Laboratory, Imperial College, London, United Kingdom; 2. Solid State Physics, Kyushu University, Fukuoka, Japan; 3. London Centre for Nanotechnology, UCL, London, United Kingdom*
[View Digest Text](#)
- SOE-04. Field Orientation dependent Spin-Wave Dynamics of Artificial Spin Ice Lattices.** M. Kuchibhotla¹, A. Haldar¹ and A.O. Adeyeye² *1. Physics, Indian Institute of Technology Hyderabad, Sangareddy, India; 2. Physics, Durham University, Durham, United Kingdom*
[View Digest Text](#)

- SOE-05. Topological magnons and magnon-polarons in 2D magnets. (Invited)** S. Kim¹ 1. Department of Physics, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, The Republic of Korea
[View Digest Text](#)
- SOE-06. Withdrawn**
- SOE-07. Withdrawn**
- SOE-08. Topological magnons driven by the Dzyaloshinskii-Moriya interaction in the centrosymmetric ferromagnet Mn₅Ge₃.** M. dos Santos Dias^{1,2}, N. Biniskos³, F.J. dos Santos^{4,5}, K. Schmalzl⁶, J. Persson⁷, F. Bourdarot⁸, N. Marzari^{4,5}, S. Blügel¹, T. Brückel⁷ and S. Lounis^{1,2} 1. Institut and Institute for Advanced Simulation, Forschungszentrum Jülich, Jülich, Germany; 2. Faculty of Physics, University of Duisburg-Essen and CENIDE, Duisburg, Germany; 3. Jülich Centre for Neutron Science at MLZ, Forschungszentrum Jülich GmbH, Garching, Germany; 4. Theory and Simulation of Materials (THEOS), and National Centre for Computational Design and Discovery of Novel Materials (MARVEL), École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland; 5. Laboratory for Materials Simulations (LMS), Paul Scherrer Institut, Villeggen, Switzerland; 6. Jülich Centre for Neutron Science at ILL, Forschungszentrum Jülich GmbH, Grenoble, France; 7. Jülich Centre for Neutron Science (JCNS-2) and Peter Grünberg Institut (PGI-4), Forschungszentrum Jülich GmbH, Jülich, Germany; 8. CEA, IRIG, MEM, MDN, Université Grenoble Alpes, Grenoble, France
[View Digest Text](#)
- SOE-09. Low-energy magnonic edge states protected by non-equilibrium topology.** P.M. Gunnink¹, J.S. Harms¹, A. Mook² and R.A. Duine^{1,3} 1. Utrecht University, Utrecht, Netherlands; 2. Johannes Gutenberg University, Mainz, Germany; 3. Eindhoven University of Technology, Eindhoven, Netherlands
[View Digest Text](#)
- SOE-10. Spin-Wave Frequency Comb and Penrose Superradiance.** Z. Wang¹, Z. Jin¹, H. Yuan², Y. Cao¹ and P. Yan¹ 1. University of Electronic Science and Technology of China, Chengdu, China; 2. Utrecht University, Utrecht, Netherlands
[View Digest Text](#)
- SOE-11. Spontaneous Emergence of Spin-Wave Frequency Combs Mediated by Vortex Gyration.** C. Heins^{1,2}, K. Schultheiss¹, L. Körber^{1,2}, A. Kákay¹, T. Hula^{1,3}, M. Bejarano^{1,2}, J. Lindner¹, J. Fassbender^{1,2} and H. Schultheiss^{1,2} 1. Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany; 2. Technische Universität Dresden, Dresden, Germany; 3. Technische Universität Chemnitz, Chemnitz, Germany
[View Digest Text](#)

- SOE-12. Evidence of non-degenerated, non-reciprocal and ultrafast spin-waves in the canted antiferromagnet α -Fe₂O₃.** A. El Kanj¹, O. Gomonay², I. Boventer¹, P. Bortolotti¹, V. Cros¹, A. Anane¹ and R. Lebrun¹ *1. Unité Mixte de Physique CNRS, Thales, Université Paris-Saclay, Palaiseau, France; 2. Institute of Physics, Johannes Gutenberg University Mainz, Mainz, Germany*
[View Digest Text](#)

ORAL SESSIONS

Session SOF

ULTRAFAST MAGNETISM

Stephane Mangin, Chair

Université de Lorraine, Vandoeuvre-lès-Nancy, France

- SOF-01. Spin Dynamics at Interfaces on Femtosecond Timescales. (Invited)** A. Eschenlohr¹ *1. University Duisburg-Essen, Duisburg, Germany*
[View Digest Text](#)
- SOF-02. Ultrafast electron-phonon scattering in an antiferromagnetic Dirac-semimetal.** M. Weber¹, K. Leckron¹ and H. Schneider¹ *1. Physics, TU Kaiserslautern, Kaiserslautern, Germany*
[View Digest Text](#)
- SOF-03. Indirect Optical Manipulation of the Antiferromagnetic Order of Insulating NiO by Ultrafast Interfacial Energy Transfer.** S. Wust¹, C. Seibel¹, H. Meer², P. Herrgen¹, C. Schmitt², L. Baldrati², R. Ramos^{3,4}, T. Kikkawa⁵, E. Saitoh^{5,6}, O. Gomonay², J. Sinova^{2,7}, Y. Mokrousov^{2,8}, H. Schneider¹, M. Kläui², B. Rethfeld¹, B. Stadtmüller^{1,2} and M. Aeschlimann¹ *1. Department of Physics and Research Center OPTIMAS, RPTU Kaiserslautern-Landau, Kaiserslautern, Germany; 2. Institute of Physics, Johannes Gutenberg-University Mainz, Mainz, Germany; 3. CIQUS, Departamento de Química-Física, Universidade de Santiago de Compostela, Santiago de Compostela, Spain; 4. WPI Advanced Institute for Materials Research, Tohoku University, Sendai, Japan; 5. Department of Applied Physics, The University of Tokyo, Tokyo, Japan; 6. Institute for AI and Beyond, The University of Tokyo, Tokyo, Japan; 7. Institute of Physics, Czech Academy of Sciences, Praha, Czechia; 8. Peter Grünberg Institut and Institute for Advanced Simulation, Forschungszentrum Jülich and JARA, Jülich, Germany*
[View Digest Text](#)
- SOF-04. Experimental evidence of ultrafast magnon generation in laser driven demagnetization dynamics. (Invited)** C. von Korff Schmising¹, S. Jana¹, K. Yao¹, M. Hennecke¹, D. Schick¹, M. Viret², J. Chauleau² and S. Eisebitt¹ *1. Max Born Institute, Berlin, Germany; 2. CEA, Paris Saclay, Paris, France*
[View Digest Text](#)

SOF-05. Investigating the interplay of local electron correlations and ultrafast spin dynamics in fcc nickel at the European x-ray free electron laser. *T. Lojewski*¹, M.F. Elhanoty², L. Guyader³, O. Grånäs², N. Agarwal³, C. Boeglin⁴, R. Carley³, A. Castoldi^{5,6}, C. David⁷, C. Deiter³, F. Döring⁷, R.Y. Engel⁸, F. Erdinger⁹, H. Fangohr^{3,10}, C. Fiorini^{5,6}, P. Fischer⁹, N. Gerasimova³, R. Gort³, F. de Groot¹¹, K. Hansen⁸, S. Hauf³, D. Hickin³, M. Izquierdo³, B.E. Van Kuiken³, Y. Kvashnin², C. Lambert¹², D. Lomidze³, S. Maffessanti⁸, L. Mercadier³, G. Mercurio³, P.S. Miedema⁸, K. Ollefs¹, M. Pace⁴, M. Porro^{3,13}, J. Rezvani¹⁴, B. Rösner⁷, N. Rothenbach¹, A. Samartsev^{3,8}, A. Scherz³, J. Schlappa³, C. Stamm^{12,15}, M. Teichmann³, P. Thunstrom², M. Turcato³, A. Yaroslavtsev^{2,3}, J. Zhu³, M. Beye⁸, H. Wende¹, U. Bovensiepen¹, O. Eriksson^{2,16} and A. Eschenlohr¹

1. Faculty of Physics, University of Duisburg-Essen, Duisburg, Germany; 2. Department of Physics and Astronomy, Uppsala University, Uppsala, Sweden; 3. European XFEL, Schenefeld, Germany; 4. Institut de Physique et Chimie des Matériaux de Strasbourg, Université de Strasbourg, Strasbourg, France; 5. Dipartimento di Elettronica, Informazione e Bioingegneria, Politecnico di Milano, Milano, Italy; 6. Istituto Nazionale di Fisica Nucleare, Milano, Italy; 7. Paul Scherrer Institut, Villigen, Switzerland; 8. Deutsches Elektronen-Synchrotron DESY, Hamburg, Germany; 9. Institute for Computer Engineering, University of Heidelberg, Heidelberg, Germany; 10. Max-Planck Institute for the Structure and Dynamics of Matter, Hamburg, Germany; 11. Debye Institute for Nanomaterials Science, Utrecht University, Utrecht, Netherlands; 12. Department of Materials, ETH Zurich, Zurich, Switzerland; 13. Department of Molecular Sciences and Nanosystems, Ca' Foscari University of Venice, Venezia, Italy; 14. Laboratori Nazionali di Frascati, INFN, Frascati (Roma), Italy; 15. Institute for Electric Power Systems, University of Applied Sciences and Arts Northwestern Switzerland, Windisch, Switzerland; 16. School of Science and Technology, Örebro University, Örebro, Sweden

[View Digest Text](#)

SOF-06. Experimental detection of magnon noise enhancement near spin reorientation in $\text{Sm}_{0.7}\text{Er}_{0.3}\text{FeO}_3$. *M.A. Weiss*¹, A. Herbst¹, J. Schlegel¹, T. Dannegger¹, M. Evers¹, A. Donges¹, M. Nakajima², A. Leitenstorfer¹, S. Goennenwein¹, U. Nowak¹ and T. Kurihara³

1. Physics Department, University of Konstanz, Konstanz, Germany; 2. Institute of Laser Engineering, Osaka University, Osaka, Japan; 3. Institute for Solid State Physics, The University of Tokyo, Kashiwa, Japan

[View Digest Text](#)

SOF-07. Coherent Magnetization Dynamics in Strongly Quenched Systems. *A. Lentfert*¹, A. De¹, L. Scheuer¹, B. Stadtmüller^{1,2}, B. Hillebrands¹, G. von Freymann^{1,3}, M. Aeschlimann¹ and P. Pirro¹

1. University of Kaiserslautern-Landau, Kaiserslautern, Germany; 2. Johannes Gutenberg University Mainz, Mainz, Germany; 3. Fraunhofer Institute for Industrial Mathematics, Kaiserslautern, Germany

[View Digest Text](#)

SOF-08. Withdrawn

- SOF-09. Optical Control of Spin Waves in Hybrid YIG/Plasmonic Structures.** *N. Kuznetsov*¹, *H. Qin*^{2,3}, *L. Flajšman*¹ and *S. van Dijken*¹ *1. Applied Physics, Aalto University, Espoo, Finland; 2. Wuhan University, Wuhan, China; 3. Wuhan Institute of Quantum Technology, Wuhan, China*
[View Digest Text](#)

POSTER SESSION

Session SPA
MAGNETIZATION DYNAMICS AND
MICROMAGNETICS
(Poster Session)

Sebastian Knauer, Co-Chair
University of Vienna, Vienna, Austria

Vitaliy Vasyuchka, Co-Chair
Technische Universitaet Kaiserslautern, Kaiserslautern, Germany

- SPA-01. Design of two-dimensional magnonic crystals using a yttrium iron garnets and non-magnetic metals.** *K. Mori*^{1,2}, *T. Koguchi*^{1,2}, *T. Watanabe*³, *M. Inoue*¹, *K. Ishiyama*¹ and *T. Goto*¹ *1. Research Institute of Electrical Communication, Tohoku University, Sendai, Japan; 2. Graduate School of Engineering, Tohoku University, Sendai, Japan; 3. Shin-Etsu Chemical Co., Ltd, Annaka, Japan*
[View Digest Text](#)
- SPA-02. Withdrawn**
- SPA-03. Ultrafast laser induced magnetization switching in Amorphous TbCo and the Role of Element Specific Damping on HI-AOS.** *P.P. Syam*¹ and *J.R. Mohanty*¹ *1. Department of Physics, Indian Institute of Technology Hyderabad, Sangareddy, India*
[View Digest Text](#)
- SPA-04. Micromagnetics Simulation of Highly Efficient Oscillation of Magnetization in a Ferromagnetic Local Areas via Spin Waves induced by Spin-Orbit Torque.** *T. Koda*¹, *S. Muroga*² and *Y. Endo*³ *1. Electronic Mechanical Engineering, National Institute of Technology, Oshima College, SuoOshima, Japan; 2. Mathematical Science and Electrical-Electronic-Computer Engineering, Akita University, Akita, Japan; 3. Electrical Engineering, Tohoku University, Sendai, Japan*
[View Digest Text](#)
- SPA-05. Accessing Ultrafast Demagnetization Rates of Ferrimagnetic Thin Films through THz Emission Spectroscopy.** *G. Nava Antonio*¹, *Q. Remy*², *M. Hehn*³, *S. Mangin*³ and *C. Ciccarelli*¹ *1. Cavendish Laboratory, University of Cambridge, Cambridge, United Kingdom; 2. Department of Physics, Freie Universität Berlin, Berlin, Germany; 3. Institut Jean Lamour, Université de Lorraine, Nancy, France*
[View Digest Text](#)

- SPA-06. Interpretation of spin-wave modes in Co/Ag nanodot arrays probed by broadband ferromagnetic resonance.** D. Markó^{1,2}, R. Cheenikundil³, J. Bauer³, K. Lenz⁴, W. Chuang⁵, K. Lin⁵, J. Wu⁶, M. d'Aquino⁷, R. Hertel³ and D.S. Schmool² *1. Magnetic Microsystem Technologies, Silicon Austria Labs GmbH, Villach, Austria; 2. Université Paris-Saclay, UVSQ, CNRS, GEMaC, Versailles, France; 3. Institut de Physique et Chimie des Matériaux de Strasbourg, Université de Strasbourg, CNRS, Strasbourg, France; 4. Institute of Ion Beam Physics and Materials Research, Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany; 5. Department of Materials Science and Engineering, National Chung Hsing University, Taichung, Taiwan; 6. Department of Physics, National Changhua University of Education, Changhua, Taiwan; 7. Department of Electrical Engineering and ICT, University of Naples Federico II, Naples, Italy*
[View Digest Text](#)
- SPA-07. A Theoretical Study with Numerical Simulations of Spin-waves-induced Domain Wall Motion.** Y. Chuang¹ and Y. Tang¹ *1. National Central University, Taoyuan, Taiwan*
[View Digest Text](#)
- SPA-08. Observation of mode splitting by magnon-magnon coupling in synthetic antiferromagnets.** D. Hayashi¹, Y. Shiota^{1,2}, M. Ishibashi¹, R. Hisatomi^{1,2}, T. Moriyama^{1,2} and T. Ono^{1,2} *1. Institute for Chemical Research, Kyoto University, Uji, Japan; 2. Center for Spintronics Research Network, Kyoto University, Uji, Japan*
[View Digest Text](#)
- SPA-09. Direct observation of propagating magnons with large non-reciprocity.** R. Gallardo¹, M. Weigand², K. Schultheiss⁶, A. Kákay⁶, R. Mattheis³, J. Raabe⁴, G. Schütz⁵, A. Deac⁷, J. Lindner⁶ and S. Wintz^{5,2} *1. Universidad Técnica Federico Santa María, Valparaíso, Chile; 2. Helmholtz-Zentrum Berlin, Berlin, Germany; 3. Leibniz Institut für Photonische Technologien, Jena, Germany; 4. Paul Scherrer Institut, Villigen PSI, Switzerland; 5. Max Planck Institut für Intelligente Systeme, Stuttgart, Germany; 6. Institute of ion beam physics and materials research, Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany; 7. Dresden high magnetic field laboratory, Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany*
[View Digest Text](#)
- SPA-10. Signal equalization of nonreciprocal SWs by using an air gap in nm-thick YIG microstructure.** M. Sarker¹, K. Terao¹, H. Yamahara¹, M. Seki¹ and H. Tabata¹ *1. Department of Electrical Engineering and Information Systems, The University of Tokyo, Tokyo, Japan*
[View Digest Text](#)

- SPA-11. Propagating Spin-Wave Spectroscopy At Millikelvin Temperatures Using Arbitrary Magnetisation Orientations.** *S. Knauer¹, S. Peinhaupt¹, K. Davidkova², D. Schmoll^{1,3}, R. Serha^{1,3}, A. Voronov^{1,3}, Q. Wang¹, M. Lindner⁴, T. Reimann⁴, C. Dubs⁴, M. Urbánek² and A. Chumak¹* *1. Faculty of Physics, University of Vienna, Vienna, Austria; 2. Brno University of Technology, CEITEC BUT, Brno, Czechia; 3. Vienna Doctoral School in Physics, University of Vienna, Vienna, Austria; 4. INNOVENT e.V. Technologieentwicklung, Jena, Germany*
[View Digest Text](#)
- SPA-12. Spin-wave dynamics in the multi-layered ferromagnetic nanorod.** *H. Reshetniak¹, N. Lesniewski¹, U. Makartsou¹, M. Golebiewski¹, P. Gruszecki¹ and M. Krawczyk¹* *1. Institute of Spintronics and Quantum Information, Adam Mickiewicz University, Poznan, Poland*
[View Digest Text](#)
- SPA-13. Spin motive force generated by non-linear spin waves.** *K. Hoshi^{1,2}, T. Hioki^{3,1} and E. Saitoh^{1,2}* *1. The University of Tokyo, Tokyo, Japan; 2. institute for AI and Beyond, Tokyo, Japan; 3. Tohoku University, Sendai, Japan*
[View Digest Text](#)
- SPA-14. Global Biasing Using a Hardware-Based Artificial Zeeman Term in Spinwave Ising Machines.** *V. Gonzalez¹, A. Litvinenko¹, R. Khymyn¹ and J. Åkerman¹* *1. University of Gothenburg, Gothenburg, Sweden*
[View Digest Text](#)
- SPA-15. Magnetic Structures and Spinwave Excitations in Rare-earth Iron Garnet near Compensation Temperature.** *M. Mori¹* *1. Japan Atomic Energy Agency, Ibaraki, Tokai, Japan*
[View Digest Text](#)
- SPA-16. Three Dimensional Spatial Distributions of Demagnetization Factors in Assemblies of Discrete Magnetic Elements: A Multi-scalar Approach and Solution.** *S. McCann¹ and T. Mercer¹* *1. University of Central Lancashire, Preston, United Kingdom*
[View Digest Text](#)
- SPA-17. Nonlinear spin-wave transport in the YIG nanowaveguides.** *K. Davidková¹, Q. Wang³, A. Voronov³, O. Wojewoda⁵, S. Knauer³, M. Lindner⁴, T. Reimann⁴, C. Dubs⁴, A. Chumak³ and M. Urbánek^{1,2}* *1. Physical engineering, Brno University of Technology, Brno, Czechia; 2. CEITEC BUT, Brno, Czechia; 3. Faculty of Physics, Vienna University of Technology, Vienna, Austria; 4. INNOVENT e. V. Technologieentwicklung, Jena, Germany; 5. CEITEC, Brno University of Technology, Brno, Czechia*
[View Digest Text](#)
- SPA-18. Withdrawn**
- SPA-19. Influence of non-local damping on magnon properties of ferromagnets.** *Z. Lu¹* *1. Applied physics, KTH Royal Institute of Technology, Stockholm, Sweden*
[View Digest Text](#)

Session TOA
MAGNETIC TEXTURES I

Sachin Krishnia, Chair

Unite Mixte de Physique CNRS/Thales, Palaiseau, France

- TOA-01. Room temperature skyrmions in synthetic antiferromagnets and their fast current induced dynamics without skyrmion Hall effect. (Invited) O. Boulle¹**
I. SPINTEC, GRENOBLE, France
[View Digest Text](#)
- TOA-02. External bias field control of skyrmion dynamics in a magnetic nanotrack. H. Peruma¹, S. Syamlal¹, B. Priyanka¹ and J. Sinha¹** *I. Physics and Nanotechnology, SRM Institute of Science and Technology, Chennai, India*
[View Digest Text](#)
- TOA-03. Withdrawn**
- TOA-04. Withdrawn**
- TOA-05. Spin torque driven Skyrmion resonance technique in frustrated Fe₃Sn₂ crystal. N. Bernstein¹, B.J. Assouline¹, H. Li², I. Rozhansky¹, W. Wang² and A. Capua¹** *1. Applied Physics, The Hebrew University of Jerusalem, Jerusalem, Israel; 2. Beijing National Laboratory for Condensed Matter Physics, Chinese Academy of Sciences, Beijing, China*
[View Digest Text](#)
- TOA-06. Interaction of propagating spin waves with extended skyrmions. R. Mansell¹, T. Schaffers¹, R.B. Holländer¹, H. Qin^{1,2} and S. van Dijken¹** *1. Department of Applied Physics, Aalto University, Espoo, Finland; 2. School of Physics and Technology, Wuhan University, Wuhan, China*
[View Digest Text](#)
- TOA-07. Withdrawn**
- TOA-08. Impact of the Ampère-Oersted field on the dynamics of spin-torque vortex oscillators. S. de Wergifosse¹, C. Chopin¹ and F. Abreu Araujo¹** *1. UCLouvain, Louvain-la-Neuve, Belgium*
[View Digest Text](#)
- TOA-09. Dynamic properties of magnetic hopfions. (Invited) O. Tartakivska^{1,2}, M. Krawczyk¹, K. Sobucki¹ and P. Graczyk³**
1. Adam Mickiewicz University Poznan Poland, Poznan, Poland; 2. Institute of Magnetism, National Academy of Sciences of Ukraine, Kyiv, Ukraine; 3. Institute of Molecular Physics PAS, Poznan, Poland
[View Digest Text](#)
- TOA-10. Current-induced nonreciprocal dynamics and nonlinear Hall effect of a magnetic hopfion. Y. Liu¹, H. Watanabe¹ and N. Nagaosa^{1,2}** *1. Center for Emergent Matter Science, RIKEN, Wako, Japan; 2. Department of Applied Physics, The University of Tokyo, Tokyo, Japan*
[View Digest Text](#)

- TOA-11. Dynamics of an Antiferromagnetic Bloch Line Driven by Spin Current.** *R. Ovcharov*¹, *B. Ivanov*^{2,3}, *J. Åkerman*¹ and *R. Khymyn*¹ *1. Department of Physics, University of Gothenburg, Gothenburg, Sweden; 2. Institute of Magnetism of NASU and MESU, Kyiv, Ukraine; 3. Institute for Molecules and Materials, Radboud University, Nijmegen, Netherlands*
[View Digest Text](#)
- TOA-12. Resonant Magnetoelastic Coupling Between Magnetic Vortex and Lattice Breathing Modes.** *A. Bondarenko*^{1,2}, *M. Kounalakis*^{1,3}, *S. Viola Kusminskiy*^{3,4}, *G. Bauer*^{5,6} and *Y. Blanter*¹ *1. Kavli Institute of Nanoscience, Delft University of Technology, Delft, Netherlands; 2. Institute of Magnetism of NAS and MOS of Ukraine, Kyiv, Ukraine; 3. Institute for Theoretical Solid State Physics, RWTH Aachen University, Aachen, Germany; 4. Max Planck Institute for the Science of Light, Erlangen, Germany; 5. WPI-AIMR, Tohoku University, Sendai, Japan; 6. Kavli Institute for Theoretical Sciences, University of the Chinese Academy of Sciences, Beijing, China*
[View Digest Text](#)

ORAL SESSIONS

Session TOB

MAGNETIZATION DYNAMICS AND DAMPING I

Paul Keatley, Chair

University of Exeter, Exeter, United Kingdom

- TOB-01. Nonlinear Multi-Magnon Scattering in Ensembles of Nanomagnets. (Invited)** *S. Lendinez*¹, *M.T. Kaffash*¹, *O.G. Heinonen*², *S. Gliga*⁴, *E. Iacocca*³ and *B. Jungfleisch*¹ *1. University of Delaware, Newark, DE, United States; 2. Argonne National Laboratory, Lemont, IL, United States; 3. University of Colorado Colorado Springs, Colorado Springs, CO, United States; 4. Paul Scherrer Institute, Villigen, Switzerland*
[View Digest Text](#)
- TOB-02. Magnon Cherenkov effect in ferromagnet/superconductor heterostructures. (Invited)** *O. Dobrovolskiy*¹ *1. Faculty of Physics, University of Vienna, Vienna, Austria*
[View Digest Text](#)
- TOB-03. Compensation of anisotropy in spin-Hall devices for neuromorphic applications.** *P. Sethi*¹, *D. Sanz Hernandez*¹, *F. Godel*¹, *S. Krishnia*¹, *F. Ajejas*¹, *A. Mizrahi*¹, *V. Cros*¹, *D. Markovic*¹ and *J. Grollier*¹ *1. Unite Mixte de Physique CNRS/Thales, Palaiseau, France*
[View Digest Text](#)
- TOB-04. Impact of Pulse Amplitude on Voltage-Driven Precessional Switching Dynamics Using Macrospin Modeling.** *D. Favaro*^{1,2}, *W. Kim*¹, *M. Gama Monteiro*¹, *S. Rao*¹, *R. Carpenter*¹, *J. Van Houdt*^{1,3}, *K. Temst*^{2,1} and *S. Couet*¹ *1. Imec, Leuven, Belgium; 2. Quantum Solid State Physics (QSP), Department of Physics and Astronomy, KU Leuven, Leuven, Belgium; 3. Semiconductor Physics, Department of Physics and Astronomy, KU Leuven, Leuven, Belgium*
[View Digest Text](#)

- TOB-05. Effect of thermal annealing on the magnetization reversal and spin dynamics in ferrimagnetic CoTb thin films.** *J. Pradhan*¹, *M. Devapriya*¹, *R. Mondal*², *M. Talluri*², *A. Haldar*¹ and *C. Murapaka*² *1. Physics, Indian Institute of Technology Hyderabad, Sangareddy, India; 2. Materials Science and Metallurgical Engineering, Indian Institute of Technology Hyderabad, Sangareddy, India*
[View Digest Text](#)
- TOB-06. Spin Dynamics with Inertia in Ferromagnetic Thin Films.** *A. De*¹, *A. Lentfert*¹, *L. Scheuer*¹, *B. Stadtmüller*^{1,2}, *P. Pirro*¹, *G. von Freymann*^{1,3} and *M. Aeschlimann*¹ *1. TU Kaiserslautern, Kaiserslautern, Germany; 2. Johannes Gutenberg University, Mainz, Germany; 3. Fraunhofer Institute for Industrial Mathematics, Kaiserslautern, Germany*
[View Digest Text](#)
- TOB-07. Study on magnetization dynamics induced by the spin-orbit torque in devices consisting of hematite.** *A. Yamaguchi*¹, *N. Matsumoto*², *W. Yoshikawa*² and *Y. Fujii*² *1. Laboratory of Advanced Science and Technology for Industry, University of Hyogo, Ako-gun, Japan; 2. KRI Inc., Kyoto, Japan*
[View Digest Text](#)
- TOB-08. Investigating coupling mechanisms in vortex-based Magnetic Tunnel Junctions.** *A. Jenkins*¹, *L. Martins*¹, *L. Benetti*¹, *A. Schulman*¹, *P. Anacleto*¹ and *R. Ferreira*¹ *1. International Iberian Nanotechnology Laboratory, Braga, Portugal*
[View Digest Text](#)
- TOB-09. Binding Events Leveraging the Mutual Synchronization of Spintronic Nano-oscillators.** *M. Romera*^{1,2}, *P. Talatchian*¹, *S. Tsunegi*³, *K. Yakushiji*³, *A. Fukushima*³, *H. Kubota*³, *S. Yuasa*³, *V. Cros*¹, *P. Bortolotti*¹, *M. Ernoult*^{1,4}, *D. Querlioz*⁴ and *J. Grollier*¹ *1. Unité Mixte de Physique, CNRS, Thales, Univ. Paris-Sud, Université Paris-Saclay, Palaiseau, France; 2. GFMC, Dpto. Física de Materiales, Universidad Complutense de Madrid, Madrid, Spain; 3. National Institute of Advanced Industrial Science and Technology (AIST), Spintronics Research Center, Tsukuba, Japan; 4. Centre de Nanosciences et de Nanotechnologies, CNRS, Univ. Paris-Sud, Université Paris-Saclay, Orsay, France*
[View Digest Text](#)
- TOB-10. Dynamic magnetization behavior of magnetostatically coupled linear chains of thick Permalloy nanomagnets.** *J.R. Scott*¹, *D. Atkinson*¹ and *A.O. Adeyeye*¹ *1. Physics, Durham University, Durham, United Kingdom*
[View Digest Text](#)
- TOB-11. Permeability Control of Ferromagnetic Wires for Time-varying Spintronic Metamaterials.** *T. Kodama*¹, *N. Kikuchi*², *S. Okamoto*^{2,3}, *S. Ohno*⁴ and *S. Tomita*^{1,4} *1. Institute for Excellence in Higher Education, Tohoku University, Sendai, Japan; 2. Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Sendai, Japan; 3. Center for Science and Innovation in Spintronics, Tohoku University, Sendai, Japan; 4. Department of Physics, Graduate School of Science, Tohoku University, Sendai, Japan*
[View Digest Text](#)

- TOB-12. Investigations of ferromagnetic resonance and inverse spin Hall effect in NiFe/FeMn/NiFe multilayers with varying antiferromagnetic layer thickness.** *B. Panigrahi*¹, M. Manivel Raja³, C. Murapaka² and A. Haldar¹
1. Department of Physics, Indian Institute of Technology, Hyderabad, Sangareddy, India; 2. Department of Materials Science and Metallurgical Engineering, Indian Institute of Technology, Hyderabad, Sangareddy, India; 3. Advanced Magnetic Group, Defence Metallurgical Research Laboratory, Kanchanbagh, India
[View Digest Text](#)
- TOB-13. Ferromagnetic resonance hysteresis in hybrid magnetic trilayers with combined in-plane and perpendicular magnetic anisotropies.** *D. Markó*^{1,2}, D.S. Schmool², K. Lenz³, J. Díaz^{4,5}, C. Quirós^{4,5}, A. Hierro-Rodriguez^{4,5}, M. Velez^{4,5} and L.M. Álvarez-Prado^{4,5} *1. Magnetic Microsystem Technologies, Silicon Austria Labs GmbH, Villach, Austria; 2. Université Paris-Saclay, UVSQ, CNRS, GEMaC, Versailles, France; 3. Institute of Ion Beam Physics and Materials Research, Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany; 4. Departamento de Física, Facultad de Ciencias, Universidad de Oviedo, Oviedo, Spain; 5. Centro de Investigación en Nanomateriales y Nanotecnología (CINN), CSIC-Universidad de Oviedo, El Entrego, Spain*
[View Digest Text](#)
- TOB-14. Thickness dependence of creep-scaling behavior in Pt/Co single interface films.** *J. Yu*¹, S. Lee¹, M. Kim¹, J. Shin¹, W. Shim¹ and S. Choe¹ *1. Physics and Astronomy, Seoul National University, Seoul, The Republic of Korea*
[View Digest Text](#)
- TOB-15. Epitaxial Co₂FeSi/LiNbO₃ multiferroic heterostructures with a low damping constant.** *S. Yamada*^{1,2}, T. Usami¹, S. Komori³, S. Nagata⁴, Y. Nozaki^{5,6}, T. Taniyama³ and K. Hamaya^{1,2} *1. Center for Spintronics Research Network, Graduate School of Engineering Science, Osaka University, Toyonaka, Japan; 2. Spintronics Research Network Division, Institute for Open and Transdisciplinary Research Initiatives, Osaka University, Suita, Japan; 3. Department of Physics, Nagoya University, Nagoya, Japan; 4. Department of Systems Innovation, Graduate School of Engineering Science, Osaka University, Toyonaka, Japan; 5. Department of Physics, Keio University, Yokohama, Japan; 6. Center for Spintronics Research Network, Keio University, Yokohama, Japan*
[View Digest Text](#)
- TOB-16. Magnetization dynamics of [Co₆₀Fe₄₀/Pt]₅ multilayers synthesized over varying Pt buffer structures.** *F.M. Matinaga*¹, M. Tavares¹, A. Krohling¹, G. Gomes^{3,4}, L. Fernandez³, M. Martins¹, L.H. Andrade¹, P. Nakarmi² and T. Mewes² *1. Centro de Desenvolvimento de Tecnologia Nuclear, Belo Horizonte, Brazil; 2. Department of Physics and Astronomy, University of Alabama, Tuscaloosa, AL, United States; 3. Depto de Física, Universidade Federal de Minas Gerais, Belo Horizonte, Brazil; 4. Universidade de Montes Claros, Montes Claros, Brazil*
[View Digest Text](#)

- TOB-17. Observation of Coherence Anomaly in $Y_3Fe_5O_{12}$.** *T. Makiuchi*¹, *T. Hioki*^{1,2}, *H. Shimizu*¹, *K. Hoshi*^{1,4}, *M. Elyasi*², *K. Yamamoto*³, *N. Yokoi*^{1,4}, *G. Bauer*² and *E. Saitoh*^{1,4} *1. Department of Applied Physics, The University of Tokyo, Bunkyo, Japan; 2. Advanced Institute for Materials Research, Tohoku University, Sendai, Japan; 3. Advanced Science Research Center, Japan Atomic Energy Agency, Tokai, Japan; 4. Institute for AI and Beyond, The University of Tokyo, Bunkyo, Japan*

[View Digest Text](#)

ORAL SESSIONS

Session TOC

MICROMAGNETICS AND HYSTERESIS MODELING I

Arabinda Haldar, Chair

Indian Institute of Technology Hyderabad, Hyderabad, India

- TOC-01. Finite Difference Micromagnetic Simulations using True 3D Periodic Boundary Conditions.** *F. Bruckner*¹, *A. Ducevic*¹, *C. Abert*¹ and *D. Suess*¹ *1. Functional Materials, University of Vienna, Vienna, Austria*

[View Digest Text](#)

- TOC-02. Hybrid precorrected FFT - Poisson solver method for the magnetostatic field in finite element micromagnetic modeling.** *J. Duan*¹ and *V. Lomakin*¹ *1. University of California, San Diego, San Diego, CA, United States*

[View Digest Text](#)

- TOC-03. Introducing the step Monte Carlo method for simulating dynamic properties.** *D. Sztenkiel*¹ *1. Institute of Physics, Polish Academy of Sciences, Warszawa, Poland*

[View Digest Text](#)

- TOC-04. Modeling of Multi-Level Spin-Orbit Torque-MRAM: Scalability, Stochasticity, and Variations.** *Z. Tong*¹, *S. Cheung*¹, *Z. Ren*¹, *P. Yang*² and *Q. Shao*¹ *1. Department of Electronic and Computer Engineering, The Hong Kong University of Science and Technology, Clear Water Bay, Hong Kong; 2. Center for Statistical Science, Tsinghua University, Beijing, China*

[View Digest Text](#)

- TOC-05. Advanced Micromagnetic HAMR Model: Investigation of Damping Dependence and Parametric Optimization for High Performance.** *W. Pantasri*¹, *A. Meo*³, *R.W. Chantrell*², *P. Churemart*¹ and *J. Churemart*¹ *1. Physics, Mahasarakham University, Kantarawichai, Thailand; 2. Physics, University of York, York, United Kingdom; 3. electrical and Information Engineering, Politecnico of Bari, Bari, Italy*

[View Digest Text](#)

- TOC-06. Rigorous single-period micromagnetic model of stripe domains: Comparison with analytics and experiment.** S. Deussner¹, D. Suess¹, C. Abert¹, F. Bruckner¹, S. Faehler², P.T. Heistracher¹, L. Reichel³ and V. Neu³ *1. University of Vienna, Vienna, Austria; 2. Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany; 3. Leibniz IFW, Dresden, Germany*
[View Digest Text](#)
- TOC-07. A micromagnetic study on the domain-wall coupling in double-helix shaped magnetic nano structures.** C. Abert¹, C. Donnelly², S. Koraltan¹, F. Bruckner¹, S. Ruiz-Gomez², A. Hierro-Rodriguez³, S. Finizio⁴, J. Raabe⁴, A. Pacheco⁵ and D. Suess¹ *1. University of Vienna, Vienna, Austria; 2. Max Planck Institute for Chemical Physics of Solids, Dresden, Germany; 3. University of Oviedo, Oviedo, Spain; 4. Paul Scherrer Institut, Villigen, Switzerland; 5. University of Zaragoza, Zaragoza, Spain*
[View Digest Text](#)
- TOC-08. Control of magnetization chirality in a ferromagnetic ring using a single nanoelement.** U. Makartsou¹, M. Moalic¹, M.K. Zelent¹ and M. Krawczyk¹ *1. Faculty of Physics, Adam Mickiewicz University, Poznan, Poland*
[View Digest Text](#)
- TOC-09. Micromagnetic Simulations of CoFeB/MgO Perpendicular Stacks for Sensor Applications.** P.M. Santos^{1,2}, P. Araujo^{1,2}, D. Sorensen^{1,2}, F. Matos^{1,2} and S. Cardoso^{1,2} *1. Instituto de Engenharia de Sistemas E Computadores – Microsistemas e Nanotecnologias (INESC MN) Lisbon, Lisbon, Portugal; 2. Instituto Superior Tecnico, Universidade de Lisboa, Lisboa, Portugal*
[View Digest Text](#)
- TOC-10. Electronic Structure and Exchange Bias of a Compensated Ferrimagnet Mn₂PtAl.** A. Lukoyanov¹, S. Samatham², A. Patel³, P. Babu⁴ and K. G. Suresh⁵ *1. M. N. Mikheev Institute of Metal Physics of Ural Branch of Russian Academy of Sciences, Ekaterinburg, Russian Federation; 2. Department of Physics, Chaitanya Bharathi Institute of Technology, Hyderabad, India; 3. Research Centre for Magnetic and Spintronic Materials, National Institute for Materials Science, Tsukuba, Japan; 4. UGC-DAE Consortium for Scientific Research, Mumbai Center, BARC Campus, Mumbai, India; 5. Magnetic Materials Laboratory, Department of Physics, Indian Institute of Technology Bombay, Mumbai, India*
[View Digest Text](#)
- TOC-11. Structural and micromagnetic modeling of the magnetic binder phase in WC-Co cemented carbides.** L. Breth^{1,2}, J. Fischbacher^{1,2}, A. Kovacs^{1,2}, H. Oezelt^{1,2}, T. Schrefl^{1,2}, C. Czettl³, S. Kuehrer³, J. Pachthofer³, M. Schwarz³, T. Weirather³ and H. Brueckl¹ *1. Department for Integrated Sensor Systems, University of Continuing Education Krems, Wiener Neustadt, Austria; 2. Christian Doppler Laboratory for magnet design through physics informed machine learning, University for Continuing Education, Wiener Neustadt, Austria; 3. R&D Cutting Tools, Ceratizit Austria GmbH, Reutte, Austria*
[View Digest Text](#)

- TOC-12. Tuning the coercivity of permanent magnets by the combined effect of field angle and defect thickness.** *Q. Ali*^{2,1}, *J. Fischbacher*^{2,1}, *A. Kovacs*^{2,1}, *H. Oezelt*^{2,1}, *M. Gusenbauer*^{2,1} and *T. Schrefl*^{2,1} *1. Department for Integrated Sensor Systems, University for Continuing Education Krems, Wiener Neustadt, Austria, Wiener Neustadt, Austria; 2. Christian Doppler Laboratory for magnet design through physics informed machine learning, University for Continuing Education Krems, Wiener Neustadt, Austria, Wiener Neustadt, Austria*
[View Digest Text](#)

POSTER SESSION

Session TPA MAGNETIC TEXTURES II (Poster Session)

Keisuke Yamada, Chair
Gifu University, Gifu, Japan

- TPA-01. Demonstration of the Current-Driven Bloch Line Motion for Novel Magnetic Memory Operation.** *J. Yang*¹, *T. Lee*¹, *K. Moon*², *A.M. Park*¹, *S. Lee*¹, *M. Shin*³, *S. Kim*⁴ and *K. Kim*¹ *1. Physics, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, The Republic of Korea; 2. Quantum Spin Team, Korea Reserach Institute of Standards and Science, Daejeon, The Republic of Korea; 3. School of Electrical Engineering, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, The Republic of Korea; 4. Physics, University of Ulsan, Daejeon, The Republic of Korea*
[View Digest Text](#)
- TPA-02. Withdrawn**
- TPA-03. Universal Relation bewteen Energy Barrier and Properties of Ferromagnet.** *M. Kim*¹, *D. Kim*² and *S. Choe*¹ *1. Department of Physics and Astronomy, Seoul National University, Seoul, The Republic of Korea; 2. Center for Spintronics, Korea Institute of Science and Technology, Seoul, The Republic of Korea*
[View Digest Text](#)
- TPA-04. Tunable Creation of Bimerons in Confined Circular Nanodots.** *B. Priyanka*¹, *S. Syamlal*¹, *H. Perumal*¹ and *J. Sinha*¹ *1. Physics and Nanotechnology, SRM University, Chennai, India*
[View Digest Text](#)
- TPA-05. Skyrmion vs. antiskyrmion Hall angles.** *B. Kim*¹ *1. Mathematics and Physics, University of Wisconsin-Parkside, Kenosha, WI, United States*
[View Digest Text](#)

- TPA-06. Magnon dynamics in a Skyrmion-textured domain wall of antiferromagnets.** *S. Lee*¹, *K. Nakata*², *O. Tchernyshyov*³ and *S. Kim*¹ *1. Physics, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, The Republic of Korea; 2. Japan Atomic Energy Agency, Tokai, Japan; 3. Physics and Astronomy, Johns Hopkins University, Baltimore, MD, United States*
[View Digest Text](#)
- TPA-07. Depinning Field of Vortex wall at Triangular Notch with Various incoming Angles in Permalloy Wires.** *D. Shiu*¹, *K. Lai*¹, *P. Wang*¹, *R. Cao*² and *L. Horng*¹ *1. Physics, National Changhua, Changhua, Taiwan; 2. Electrical Engineering, Feng Chia University, Taichung, Taiwan*
[View Digest Text](#)
- TPA-08. Influence of pinning on the dynamics of vortex-based magnetic tunnel junctions.** *A. Jenkins*¹, *L. Martins*¹, *L. Benetti*¹, *A. Schulman*¹, *P. Anacleto*¹, *M. Claro*¹, *T. Boehnert*¹ and *R. Ferreira*¹ *1. International Iberian Nanotechnology Laboratory, Braga, Portugal*
[View Digest Text](#)
- TPA-09. Frequency Sensing and Detection using Granular Vortex MTJ Nano Oscillator.** *S. Shreya*¹, *A. Jenkins*², *T. Böhnert*², *R. Ferreira*², *F. Moradi*¹ and *H. Farkhani*¹ *1. Electrical and Computer Engineering Department, Aarhus University, Aarhus, Denmark; 2. International Iberian Nanotechnology Laboratory (INL), Braga, Portugal*
[View Digest Text](#)
- TPA-10. Chiral coupling of two orthogonal magnetizations in GdCo ferrimagnet.** *S. Ko*¹, *J. Park*², *J. Park*¹, *J. Yuk*² and *K. Kim*¹ *1. Physics, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, The Republic of Korea; 2. Material Science and Engineering, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, The Republic of Korea*
[View Digest Text](#)

POSTER SESSION

Session TPB
MAGNETIZATION DYNAMICS AND DAMPING II
(Poster Session)

Dieter Suess, Chair
 University of Vienna, Vienna, Austria

- TPB-01. Magnetization dynamics in FePt nano-granular with thermal heating observed by all-optical pump-probe method.** *Y. Sasaki*¹, *I. Suzuki*², *R. Mandal*³, *S. Kasai*² and *Y. Takahashi*² *1. International Center for Young Scientists, National Institute for Materials Science (NIMS), Tsukuba, Japan; 2. Research Center for Magnetic and Spintronic Materials, National Institute for Materials Science (NIMS), Tsukuba, Japan; 3. WPI-Advanced Institute for Materials Research, Tohoku University, Sendai, Japan*
[View Digest Text](#)

TPB-02. **Withdrawn**

TPB-03. **Temperature-dependent spin dynamics in WSe₂/Pt/CoFe trilayers.** Z. Li¹, Y. Zhang¹, J. Zhang¹, Y. Song¹, S. Zhang¹, Q. Jin¹ and Z. Zhang¹ *1. Department of Optical Science and Engineering, Fudan University, Shanghai, China*
[View Digest Text](#)

TPB-04. **Effect of Si Composition on Static and Dynamic Magnetic Properties of Fe-Si Films.** Y. Jiang¹, T. Miyazaki² and Y. Endo^{1,3} *1. Department of Electrical Engineering, Tohoku University, Sendai, Japan; 2. Faculty of Engineering, Tohoku University, Sendai, Japan; 3. Center for Science and Innovation in Spintronics (CSIS), Tohoku University, Sendai, Japan*
[View Digest Text](#)

TPB-05. **Spin waves softening in thin films with perpendicular anisotropy.** N. Lesniewski¹ and P. Gruszecki¹ *1. Physics, Adam Mickiewicz University, Poznan, Poland*
[View Digest Text](#)

TPB-06. **Fitting of X-Band CW FMR in Exchange-Biased [Co/Pt] Multilayers.** B. Shortall¹ and P.S. Stamenov¹ *1. School of Physics and CRANN, Trinity College Dublin, Dublin, Ireland*
[View Digest Text](#)

TPB-07. **Binary Terahertz Frequency Shift Keying Modulation in Spin Torque Oscillators with Synthetic Antiferromagnetic Layer.** Y. Wang¹, C. Zheng¹, D. Zhang¹ and Y. Liu¹ *1. Tongji University, Shanghai, China*
[View Digest Text](#)

TPB-08. **Magnetization Process of Stadium-Shaped Magnetic Tunnel Junction Cells for Artificial Spin Ice.** H. Kubota¹, S. Tsunegi¹, K. Yakushiji¹, T. Taniguchi¹, S. Tamaru¹, T. Yamamoto¹, A. Sugihara¹, H. Nomura^{2,3} and Y. Suzuki^{2,4} *1. National Institute of Industrial Science and Technology (AIST), Tsukuba, Japan; 2. Osaka University, Toyonaka, Japan; 3. SRIS, Tohoku University, Sendai, Japan; 4. CSRN, Osaka University, Toyonaka, Japan*
[View Digest Text](#)

TPB-09. **Withdrawn**

TPB-10. **Spin reorientation transitions, field induced spin switching and exchange bias behaviour in Sm_{1-x}Y_xFeO₃ Single crystals.** S. Das¹, B. Mali¹, R. Ganesan¹ and S. Elizabeth¹ *1. Physics, Indian Institute of Science, Bangalore, India*
[View Digest Text](#)

TPB-11. **Magnetization reversal and Gilbert damping in Co₂FeAl_{0.5}Si_{0.5} (CFAS) quaternary Heusler alloy.** L.A. Longchar¹, M. Rahaman¹, M.M. Raja², V.R. Reddy³, S.N. Kaul¹ and S. Srinath¹ *1. School of Physics, University of Hyderabad, Hyderabad, India; 2. Defence Metallurgical research Laboratory, Telangana, India; 3. UGC-DAE CSR, Indore, India*
[View Digest Text](#)

- TPB-12. Perpendicular magnetic anisotropy in bismuth-doped yttrium iron garnet thin films.** *S. Mozhikunnath Das¹, L. Flajšman¹, R. Mansell¹ and S. van Dijken¹* *1. Department of applied physics, Aalto University, Espoo, Finland*
[View Digest Text](#)

POSTER SESSION

Session TPC
MICROMAGNETICS AND HYSTERESIS MODELING II
(Poster Session)
Satoshi Iihama, Chair
Tohoku University, Sendai, Japan

- TPC-01. FEA Verification and Analyses for the Attraction Cases between Magnetic Like Poles.** *S. Ran¹, M. Zou², G. Mizzell³ and C. Chen^{1,4}* *1. Quadrant Solutions, San Jose, CA, United States; 2. Lab Magnetics, A Quadrant Company, San Jose, CA, United States; 3. SuperMagnetMan, Pelham, AL, United States; 4. Magnet Energy, LLC, San Jose, CA, United States*
[View Digest Text](#)
- TPC-02. Is there theoretical upper limit of coercivity?**
C. Mitsumata¹, M. Mizuguchi² and M. Kotsugi¹ *1. Materials Science, Tokyo University of Science, Tokyo, Japan; 2. Materials Science and Technology, Nagoya University, Nagoya, Japan*
[View Digest Text](#)
- TPC-03. Analytical Inverse Preisach Model and Its Comparison With Inverse J-A Model in terms of Accuracy and Computational Efficiency.** *R. Liu¹, C. Gu¹, J. Sun² and B. Tang¹* *1. China Three Gorges University, Yichang, China; 2. Testing Center of Yichang Three Gorges Power Transmission and Transformation Engineering Co. Ltd., Yichang, China*
[View Digest Text](#)
- TPC-04. An Experimental-Numerical Approach for Energy Loss Separation of Grain-Oriented Electrical Steels.**
H. Hamzehbahmani⁴, T. Shibauchi¹, Y. Gao¹, W. Guan² and K. Muramatsu³ *1. Oita University, Oita, Japan; 2. Wuhan University, School of Electrical Engineering and Automation, Wuhan, China; 3. Saga University, Saga, Japan; 4. Durham University, Durham, United Kingdom*
[View Digest Text](#)
- TPC-05. Enhancement of HAMR performances by FePt based exchange coupled composite media.** *W. Pantasri¹, A. Meo^{2,1}, R.W. Chantrell³, P. Chureemart¹ and J. Chureemart¹* *1. Physics, Mahasarakham University, Kantarawichai, Thailand; 2. Electrical and Information Engineering, Politecnico of Bari, Bari, Italy; 3. Physics, University of York, York, United Kingdom*
[View Digest Text](#)

- TPC-06. Predictions of Optimal Heating by Magnetic Reversal Behavior of Magnetic Nanowires with Different Materials.** *Y. Chen*¹ and *B. Stadler*^{2,1} *1. CEMS, University of Minnesota, Minneapolis, MN, United States; 2. ECE, University of Minnesota, Minneapolis, MN, United States*
[View Digest Text](#)
- TPC-07. Temperature influences on the vortex chirality probability in permalloy asymmetric disk array.** *K. Lai*¹, *D. Shiu*¹, *C. Chen*¹, *V. Arockia Doss*¹ and *L. Horng*¹ *1. National Changhua University of Education Department of Physics, Changhua, Taiwan*
[View Digest Text](#)
- TPC-08. Control of Magnetization Precession Frequency using Current Density of Spin-Orbit Torque Applied to Local Area.** *T. Koda*¹, *A. Nakagawa*¹, *S. Muroga*³ and *Y. Endo*² *1. Electronic Mechanical Engineering, National Institute of Technology, Oshima College, SuoOshima, Japan; 2. Electrical Engineering, Tohoku University, Sendai, Japan; 3. Mathematical Science and Electrical-Electronic-Computer Engineering, Akita University, Akita, Japan*
[View Digest Text](#)
- TPC-09. Simulation of spin-orbit-torque switching of a perpendicular nanomagnet assisted by DMI.** *J. Watanabe*¹, *K. Yamada*² and *Y. Nakatani*¹ *1. Graduate School of Informatics and Engineering, University of Electro-Communications, Chofu, Japan; 2. Faculty of Engineering, Gifu University, Gifu City, Japan*
[View Digest Text](#)

ORAL SESSIONS

Session UOA

COMPLEX MAGNETIC OXIDES/INSULATORS

Sandra Ruiz Gómez, Chair

Max Planck Institute for Chemical Physics of Solids, Cerdanyola del valles, Spain

- UOA-01. Field Free Switching in Spin-filter Tunnel Devices.** *(Invited)* *V. Kumar*¹, *A. Khandelwal*¹, *Y. Tang*² and *B. Prasad*¹ *1. Indian Institute of Science, Bengaluru, India; 2. National Central University, Jung-Li, Taiwan*
[View Digest Text](#)
- UOA-02. Experimental and Theoretical Investigation of Cation Site Occupation and Magnetic Ordering in Co-Ferrite Spinel.** *Y. Fang*¹, *S. Mullurkara*¹, *K. Taddei*³, *G. Wang*¹ and *P. Ohodnicki*^{1,2} *1. Mechanical Engineering and Materials Science, University of Pittsburgh, Allison Park, PA, United States; 2. Electrical and Computer Engineering, University of Pittsburgh, Pittsburgh, PA, United States; 3. Oak Ridge National Laboratory, Knoxville, TN, United States*
[View Digest Text](#)

- UOA-03. Strain Mediated Control over Magnetization in CoFe₂O₄/STO (001) Thin-Film.** G. Channagoudra¹, A. Bagri², A. Ahlawat², R.J. Choudhary², M. Gupta² and V. Dayal¹
1. Department of Physics, Maharaja Institute of Technology Mysore (Aff. to VTU Belagavi), Mandya, India; 2. UGC DAE Consortium for Scientific Research, Indore, India
[View Digest Text](#)
- UOA-04. Spin-Orbit Torque Generation and Amplification of Spin-Waves in Garnets Micro-Structures. (Invited)** A. Anane¹
1. Unité Mixte de Physique, CNRS, Thales, Université Paris-Saclay, Palaiseau, France
[View Digest Text](#)
- UOA-05. Antiferromagnetic domains distribution carried by stoichiometry.** A. Mandziak¹, L. Aballe², M. Foerster², M. Angel², J. Prieto³, C. Granados Miralles⁴, A. Quesada⁴, A. Berja⁴, J. de la Figuera³ and P. Nita⁵
1. National Synchrotron Radiation Research Center SOLARIS, Cracow, Poland; 2. Alba synchrotron, Cerdanyolla del Valles, Spain; 3. Institute of Chemical Physics 'Rocasolano', Madrid, Spain; 4. Institute of Ceramic and Glass, Madrid, Spain; 5. Physics, Jagiellonian University, Cracow, Poland
[View Digest Text](#)
- UOA-06. Resonant microwave absorption in LaMn_{1-x}Mo_xO₃ (0 ≤ x ≤ 0.1) investigated using a vector network analyzer.** Y. Lee¹ and R. Mahendiran¹
1. Physics Department, National University of Singapore, Singapore
[View Digest Text](#)
- UOA-07. Strain Effects on the Magnetic Ordering in A-type Antiferromagnetic Pr_{0.5}Sr_{0.5}MnO₃ Films.** Y. Chen¹ and J.G. Lin^{1,2}
1. Center for Condensed Matter Sciences, National Taiwan University, Taipei, Taiwan; 2. Center for Atomic Initiatives for New Materials, National Taiwan University, Taipei, Taiwan
[View Digest Text](#)
- UOA-08. Withdrawn**
- UOA-09. Vibronic excitations in the resonant inelastic x-ray scattering spectra of spin-orbit Mott insulators.** N. Iwahara¹, S. Shikano¹ and W. Furukawa¹
1. Chiba University, Chiba, Japan
[View Digest Text](#)

Session UOB

MAGNETIC SEMICONDUCTORS AND METALS

Jaroslav Hamrle, Chair

Charles University in Prague, Prague, Czechia

- UOB-01. A new class of ferromagnetic semiconductors and quantum heterostructures. (Invited) L.D. Anh^{1,2}, K. Takiguchi¹, T. Chiba³ and M. Tanaka^{1,4}** *1. Dept. of Electrical Engineering and Information Systems, The university of Tokyo, Tokyo, Japan; 2. JST-PRESTO, Saitama, Japan; 3. National Institute of Technology, Fukushima College, Fukushima, Japan; 4. Center for spintronics research network, The University of Tokyo, Tokyo, Japan*
[View Digest Text](#)
- UOB-02. Magnetic Order in Wurtzite (Ga,Mn)As.** K. Gas¹, J. Sadowski¹ and M. Sawicki¹ *1. Institute of Physics, Polish Academy of Sciences, Warszawa, Poland*
[View Digest Text](#)
- UOB-04. Withdrawn**
- UOB-05. Putative Quantum Critical Point in Doped Skyrmion Binary Alloys.** S. Samatham¹, S. Shravan Kumar Reddy¹, A.K. Patel^{3,2} and K. G. Suresh² *1. Department of Physics, Chaitanya Bharathi Institute of Technology, Hyderabad, India; 2. Magnetic Materials Laboratory, Department of Physics, Indian Institute of Technology Bombay, Mumbai, India; 3. Research Centre for Magnetic and Spintronic Materials, National Institute for Materials Science (NIMS), Ibaraki, Japan*
[View Digest Text](#)
- UOB-06. Enhanced anomalous Hall and negative anisotropic magnetoresistance effects driven by *p-d* hybridization with carbon.** S. Isogami¹, Y. Kota², H. Yasufuku¹, K. Oyoshi¹, M. Tanaka¹ and Y. Takahashi¹ *1. National Institute for Materials Science (NIMS), Tsukuba, Japan; 2. National College of Technology, Fukushima college, Iwaki, Japan*
[View Digest Text](#)
- UOB-07. Machine Learning Study of Highly Spin-Polarized Heusler Alloys at Finite Temperature.** I. Kurniawan^{1,2}, Y. Miura^{1,3} and K. Hono^{1,2} *1. Research Center for Magnetic and Spintronics Material, National Institute for Materials Science (NIMS), Tsukuba, Japan; 2. Graduate School of Science and Technology, University of Tsukuba, Tsukuba, Japan; 3. Center for Spintronics Research Network (CSRN), Graduate School of Engineering Science, Osaka University, Osaka, Japan*
[View Digest Text](#)

UOB-08. Magnetotransport properties of Mn₂CoSb. M. Seredina¹, D. Karpenkov¹, A. Bogach², S. Taskaev³, R.Y. Umetsu⁴, X. Xu⁵ and V. Khovaylo¹ *1. National University of Science and Technology "MISIS", Moscow, Russian Federation; 2. Prokhorov General Physics Institute, Moscow, Russian Federation; 3. Chelyabinsk State University, Chelyabinsk, Russian Federation; 4. Institute for Materials Research, Tohoku University, Sendai, Japan; 5. School of Materials Science and Engineering, University of Science and Technology Beijing, Beijing, China*
[View Digest Text](#)

UOB-09. Withdrawn

UOB-10. Magnetic Properties of Fully-Compensated Ferrimagnet in (Cr,Fe)S Compound with NiAs-Type Structure. R.Y. Umetsu¹, S. Semboshi¹, M. Miyakawa¹, N. Yodoshi², A. Masago^{3,6}, Y. Kawahito^{3,5}, T. Fukushima^{4,6} and H. Akai^{5,7} *1. Institute for Materials Research, Tohoku University, Sendai, Japan; 2. Graduate School of Engineering, Kyushu University, Fukuoka, Japan; 3. Japan Agency for Marine-Earth Science and Technology, Yokosuka, Japan; 4. The Institute for Solid State Physics, The University of Tokyo, Kashiwa, Japan; 5. Graduate School of Engineering, Osaka University, Suita, Japan; 6. Center for Spintronics Research Network, Osaka University, Toyonaka, Japan; 7. Academeia Co. Ltd., Kashiwa, Japan*
[View Digest Text](#)

POSTER SESSION

Session UPA
FUNDAMENTAL PROPERTIES AND COOPERATIVE PHENOMENA
(Poster Session)

Le Anh, Chair
The University of Tokyo, Tokyo, Japan

UPA-01. Structure, Magnetism and Electrical Transport of Electron Doped SrCo_{0.5}Nb_{0.5}O₃. M.M. Kurian¹, P. Santhosh¹ and P. Neenu Lekshmi² *1. Physics, IIT Madras, Chennai, India; 2. Institute of Physics for Advanced Materials, Rua do Campo Alegre, Portugal*
[View Digest Text](#)

UPA-02. Microstructure and Electron Magnetic Circular Dichroism of Antiphase Boundaries in Magnetic Oxides. Z. Li^{1,2} and X. Zhong^{1,2} *1. Materials Science and Engineering, City University of Hong Kong, Kowloon, Hong Kong; 2. City University of Hong Kong Matter Science Research Institute (Futian, Shenzhen), Shenzhen, China*
[View Digest Text](#)

UPA-03. Withdrawn

- UPA-04. Band engineering of magnetic semiconductors by phosphorus doping.** O. Yastrubchak¹ and N. Tataryn¹ I. V. E. Lashkaryov Institute of Semiconductor Physics, National Academy of Sciences of Ukraine, Kyiv, Ukraine
[View Digest Text](#)
- UPA-05. Valence Band Dispersion in Mn, Bi and In doped GaAs.** N. Tataryn¹ I. V. E. Lashkaryov Institute of Semiconductor Physics, National Academy of Sciences of Ukraine, Kyiv, Ukraine
[View Digest Text](#)
- UPA-06. Effect of Crystallinity on Magnetic Properties in Manganese-Doped Indium Tin Oxide Films.** S. Kitagawa¹ and T. Nakamura^{1,2} I. Graduate School of Human and Environmental Studies, Kyoto University, Kyoto, Japan; 2. Institute for Liberal Arts and Sciences, Kyoto University, Kyoto, Japan
[View Digest Text](#)
- UPA-07. Magnetic Anisotropy Studies of Fe₃N Nanocrystals Embedded in GaN.** K. Gas¹, A. Navarro-Quezada², T. Truglas³, V. Bauernfeind³, M. Matzer², D. Kreil⁴, A. Ney², H. Groiss³, A. Bonanni² and M. Sawicki¹ I. Institute of Physics, Polish Academy of Sciences, Warsaw, Poland; 2. Institute of Semiconductor and Solid-State Physics, Johannes Kepler University Linz, Linz, Austria; 3. Christian Doppler Laboratory for Nanoscale Phase Transformations, Johannes Kepler University Linz, Linz, Austria; 4. Institute of Theoretical Physics, Johannes Kepler University Linz, Linz, Austria
[View Digest Text](#)
- UPA-08. Anisotropic Magnetoresistance Effect in Bulk Single-Crystal Half-Metallic Heusler Alloys.** T. Tanaka³, T. Kubota¹, S. Kokado² and R.Y. Umetsu^{3,4} I. Engineering, Tohoku University, Sendai, Japan; 2. Integrated Science and Technology, Shizuoka University, Hamamatsu, Japan; 3. Institute for Materials Research, Tohoku University, Sendai, Japan; 4. Center for Spintronics Research Network, Tohoku University, Sendai, Japan
[View Digest Text](#)
- UPA-09. High spin-polarization in a disordered novel quaternary Heusler alloy FeMnVGa.** S. Gupta¹, C. Barreateau², J. Crivello², M. Avdeev³ and C. Mazumdar¹ I. Condensed Matter Physics Division, Saha Institute of Nuclear Physics, Kolkata, India; 2. Metallurgy and Inorganic Materials, Université Paris-Est, Institut de Chimie et des Matériaux Paris-Est, Paris, France; 3. School of Chemistry, Australian Nuclear Science and Technology Organisation, Sydney, NSW, Australia
[View Digest Text](#)
- UPA-10. Withdrawn**

- UPA-11. Study of interplay between magnetic/electric fields and Cr-doped effect in $\text{Mo}_{1-x}\text{Cr}_x\text{Se}_2$ ($x=0, 0.5$) nanosheet.** Y. Lee¹, T. Tsai¹, C. Yang², Y. Tung³ and K. Lin⁴
1. Department of Physics, Chung Yuan Christian University, Chung-Li, Taiwan; 2. Department of Physics, National Central University, Zhongli, Taiwan; 3. Department of Physics, National Sun Yat-sen University, Kaohsiung, Taiwan; 4. Department of Chemical Engineering and Material Science, Yuan Ze University, Chung-Li, Taiwan
[View Digest Text](#)
- UPA-12. Field-Induced Spin Nematic Phase of a Magnet on the Shastry-Sutherland Lattice with the Anisotropic Ferromagnetic Interaction.** T. Sakai¹ *1. Graduate School of Material Science, University of Hyogo, Ako-gun, Japan*
[View Digest Text](#)
- UPA-13. Spin Orbital Reorientation Transitions Induced by Magnetic Field.** D. Sztienkiel¹ *1. Institute of Physics, Polish Academy of Sciences, Warszawa, Poland*
[View Digest Text](#)

ORAL SESSIONS

Session VOA NANOCRYSTALLINE AND AMORPHOUS SOFT MAGNETS I

Motoki Ota, Co-Chair
 Proterial, Ltd., Tokyo, Japan
 Naoki Ito, Co-Chair
 Proterial, Ltd., Yasugi, Japan

- VOA-01. An Extensive Experimental Study on the Effect of the Main Laser Powder Bed Fusion Process Parameters on the Soft-Magnetic Behavior of Fe-based Bulk Metallic Glasses.** M.G. Ozden¹ and N. Morley¹ *1. Material Science and Engineering, The University of Sheffield, Sheffield, United Kingdom*
[View Digest Text](#)
- VOA-02. Novel FeCoBPSiCr Amorphous Alloy Powder with High B_s of 1.61 T and High Corrosion Resistance.** H. Matsumoto¹, A. Hasegawa¹, Y. Kajiura¹, M. Hosono¹, K. Yoshidome¹, H. Ohkubo², M. Arata², M. Asai², E. Hokuto² and S. Otsuka² *1. Materials Research Center, TDK Corporation, Narita, Japan; 2. Magnetics Business Group, TDK Corporation, Tsuruoka, Japan*
[View Digest Text](#)
- VOA-03. Synchrotron radiation X-ray diffraction study on nucleation and growth of nanocrystalline phase in Fe-Si-B-P-Cu-C amorphous alloys.** S. Hiramoto^{1,2}, J. Uzuhashi³, T. Ohkubo³, A. Toda¹, C. Moriyoshi¹ and Y. Kuroiwa¹ *1. Graduate School of Advanced Science and Engineering, Hiroshima University, Higashihiroshima, Japan; 2. Tohoku Magnet Institute Co., Ltd., Natori, Japan; 3. National Institute for Materials Science (NIMS), Tsukuba, Japan*
[View Digest Text](#)

- VOA-04. First order reversal curves as a tool to analyze magnetostatic interactions and coercivity fluctuations in sets of bistable microwires.** A. Cabanas², R. Perez Del Real¹, D. Laroze³ and M. Vázquez¹ 1. *Institute of Materials Science of Madrid (ICMM-CSIC), Madrid, Spain;* 2. *Departamento de Física, FACI, Universidad de Tarapacá, Arica, Chile;* 3. *Instituto de Alta Investigación, Cedenna, Universidad de Tarapacá, Arica, Chile*
[View Digest Text](#)
- VOA-05. Effect of Applied Stress on Magnetostriction of Amorphous Magnetic Microwires.** V. Zhukova^{1,2}, M. Churyukanova³, S. Kaloshkin³, P. Corte-Leon^{1,2}, M. Ipatov^{1,2} and A. Zhukov^{1,4} 1. *Department Polym. and Advanced Mater., Universidad del País Vasco, San Sebastián, Spain;* 2. *Dept. Appl. Phys., Universidad del País Vasco, San Sebastian, Spain;* 3. *Composite materials, National University of Science and Technology, Moscow, Russian Federation;* 4. *Dept. Appl. Phys., Universidad del País Vasco and Ikervaque, San Sebastian, Spain*
[View Digest Text](#)
- VOA-06. Formulation of electric voltage for vibration generation device using Magnetostriction Material.** T. Kawai¹, E. Ishikawa¹, M. Ohtake¹ and M. Futamoto¹ 1. *Faculty of Engineering, Yokohama National University, Yokohama, Japan*
[View Digest Text](#)
- VOA-07. Sintering of NANOMET into Nanocrystalline Soft Magnetic Composite.** R. Gautam¹, Z. Kautsar¹, X. Tang¹, H. Mamiya¹, S. Hiramoto², T. Miyatake², H. Sepehri-Amin¹, T. Ohkubo¹ and K. Hono¹ 1. *National Institute for Materials Science (NIMS), Tsukuba, Japan;* 2. *Tohoku Magnet Institute, Natori, Japan*
[View Digest Text](#)
- VOA-08. Comparative Study of the Magnetic and Magnetotransport Properties of FINEMET Thin Magnetic Wires.** S. Corodeanu¹, C. Hlenschi¹, H. Chiriac¹, T.A. Ovari¹ and N. Lupu¹ 1. *National Institute of Research and Development for Technical Physics, Iasi, Romania*
[View Digest Text](#)
- VOA-09. Near Zero Magnetostrictive Nanocrystalline Fe-Si-B-Cu-Nb Alloys with a High Heating Rate Annealing.** K. Toyonaga¹, Y. Ogawa¹ and N. Ito¹ 1. *Proterial, Ltd., Shimane, Japan*
[View Digest Text](#)
- VOA-10. Improved high permeability CoZrTaB laminated thin films with novel CMOS compatible dielectric material.** G. Wei¹, R. Das¹, D. Lordan¹, R. Sai¹, M. Hayes¹, M. Lorenc¹, B. Clarke², D. Hurley² and P. McCloskey¹ 1. *Tyndall National Institute, UCC, Cork, Ireland;* 2. *TEL Magnetic Solutions, Dublin, Ireland*
[View Digest Text](#)

- VOA-11. **Single domain to vortex state transition in permalloy nanodot arrays prepared by displacement talbot lithography and electrodeposition.** S. Honnali^{1,2}, M. Kutuzau^{1,3}, N. Kornelius^{1,2}, H. Reith¹ and K. Leistner^{1,3}
1. IFW Dresden, Dresden, Germany; 2. TU Dresden, Dresden, Germany; 3. TU Chemnitz, Chemnitz, Germany
[View Digest Text](#)

ORAL SESSIONS

Session VOB

SOFT MAGNETIC ALLOYS AND OXIDES I

Masaaki Takezawa, Chair

Kyushu Institute of Technology, Kitakyushu, Japan

- VOB-01. **Growth-Induced Order by Site-Preference in Anisotropic Mixed Rare-Earth Iron Garnet Thin Films.** A. Kaczmarek¹, E. Rosenberg^{1,2}, Y. Song¹, A. Penn³, G. Beach¹ and C. Ross¹
1. Materials Science and Engineering, Massachusetts Institute of Technology, Cambridge, MA, United States; 2. 3M Corporate Research Materials Laboratory, 3M Center, St. Paul, MN, United States; 3. MIT.nano, Massachusetts Institute of Technology, Cambridge, MA, United States
[View Digest Text](#)
- VOB-02. **Effect of YIG nanoparticles addition on the magnetic properties of manganese ferrite.** S. Che^{1,2}, J. Feng^{1,2} and Y. Ying^{1,2}
1. College of Materials Science and Engineering, Zhejiang University of Technology, Deqing, Huzhou, China; 2. Research Center of Magnetic and Electronic Materials, Zhejiang University of Technology, Deqing, Huzhou, China
[View Digest Text](#)
- VOB-03. **Powder Injection Molding and Ceramic Injection Molding-like additive manufacturing for prototyping compact cores for power electronics using MnZn ferrites.** U.M. Soupremanien¹, V. Martin² and F. Gillon²
1. CEA-LITEN, Université Grenoble Alpes, Grenoble, France; 2. ULR 2697 - L2EP, Univ. Lille, Arts et Metiers, Centrale Lille, Junia, Lille, France
[View Digest Text](#)
- VOB-04. **Withdrawn**
- VOB-05. **Accuracy Investigation of High-Frequency Core Loss Measurement for Low-Permeability Magnetic Materials.** Y. Sato¹, Y. Uehara², S. Okamoto³, S. Yoshida³, Y. Endo³, N. Ono³ and H. Matsumoto¹
1. Aoyama Gakuin University, Sagamihara, Japan; 2. Magnetic Device Laboratory Ltd., Kawasaki, Japan; 3. Tohoku University, Sendai, Japan
[View Digest Text](#)
- VOB-06. **A mechanically strong and ductile soft magnet with extremely low coercivity.** L. Han¹, F. Maccari², O. Gutfleisch², Z. Li³ and D. Raabe¹
1. Max-Planck-Institut für Eisenforschung, Düsseldorf, Germany; 2. Technical University of Darmstadt, Darmstadt, Germany; 3. Central South University, Changsha, China
[View Digest Text](#)

- VOB-07. Increase of Saturation Magnetization Flux Density in Nitrogen Defective Fe₁₆N_x.** Y. Asari¹, T. Tabata¹, M. Noujima¹, M. Komuro¹ and S. Terada¹ *1. Hitachi, Ltd., Hitachi, Japan*
[View Digest Text](#)
- VOB-08. Effect of Helical Anisotropy on Magnetic Losses in Stacked Cores of Grain-Oriented and Non-Oriented Steels.** S. Dobák¹, J. Fuzer¹, I. Petryshynets², P. Kollár¹ and F. Kováč² *1. Institute of Physics, Faculty of Science, P. J. Šafárik University in Košice, Košice, Slovakia; 2. Institute of Materials Research, Slovak Academy of Sciences, Košice, Slovakia*
[View Digest Text](#)
- VOB-09. Realization of Soft Magnetic Properties in Precipitation Hardening Stainless Steel.** T. Sato^{1,2}, T. Naruse¹, T. Ebata¹ and S. Saito² *1. Advanced Material Div., Tohoku Steel Co., Ltd., Murata-machi, Japan; 2. Graduate School of Engineering Department of Electronic Engineering, Tohoku University, Sendai, Japan*
[View Digest Text](#)
- VOB-10. Magnetic Properties of Fe-Mn-Ni Powders Prepared by Hydrogen Reduction of Wet-Synthesized Ferrite Nanopowders.** J. Nishitsuji¹, R. Okazaki¹, S. Abe¹, J. Akamatsu¹, N. Imaoka¹, Y. Kawakami², H. Hosokawa² and K. Ozaki² *1. Nicha Corporation, Anan, Japan; 2. National Institute of Advanced Industrial Science and Technology (AIST), Nagoya, Japan*
[View Digest Text](#)
- VOB-11. The effect of temperature on the magnetic properties of Fe/SiO₂/ferrite soft magnetic composites.** J. Fuzer¹, S. Vovk¹, S. Dobák¹, P. Kollár¹, R. Bureš² and M. Fáberová² *1. Institute of Physics, Faculty of Science, P.J. Šafárik University in Košice, Košice, Slovakia; 2. Institute of Materials Research, Slovak Academy of Sciences, Košice, Slovakia*
[View Digest Text](#)
- VOB-12. Temperature Dependence of Wideband Losses in Fe-Co and Fe-Si Steel Sheets.** N. Banu¹, E. Ferrara¹, L. Rocchino¹, F. Fiorillo¹, M. Pasquale¹, D. Brunt², A. Wilson² and S. Harmon² *1. Materials, INRIM, Torino, Italy; 2. National Physical Laboratory, Teddington, United Kingdom*
[View Digest Text](#)
- VOB-13. The alloying of boron to melt spun Fe-6.5%Si ribbons.** G. Ouyang¹, R. Claude², A. Kovar², M.J. Kramer^{1,2}, I.E. Anderson^{1,2} and J. Cui^{2,1} *1. Ames Laboratory, US Department of Energy, Ames, IA, United States; 2. Iowa State University, Ames, IA, United States*
[View Digest Text](#)

- VOB-14. Evaluation of microstructure and magnetic performance of Fe- 6.5 wt% Si soft magnetic powder core.** *M. Nguyen*¹, *S. Yoshida*², *S. Okamoto*^{2,3}, *T. Miyazaki*⁴ and *Y. Endo*^{1,5}
1. Department of Electrical Engineering, Graduate School of Engineering, Tohoku University, Sendai, Japan; 2. Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Sendai, Japan; 3. National Institute for Material Science (NIMS), Tsukuba, Japan; 4. Faculty of Engineering, Tohoku University, Sendai, Japan; 5. Center for Science and Innovation in Spintronics, Tohoku University, Sendai, Japan
[View Digest Text](#)
- VOB-15. Effect of Tensile Stress Application on Magnetic Properties of Fe_{0.8}Co_{0.2} Alloy and Martensitic Fe_{0.8}Co_{0.2}N_x Alloy System.** *T. Tabata*¹, *M. Komuro*¹, *Y. Asari*¹, *M. Noujima*¹ and *S. Terada*¹ *1. Research & Development Group, Hitachi, Ltd., Hitachi, Japan*
[View Digest Text](#)
- VOB-16. Magnetic Shielding Materials for Electric Vehicles.** *T. Damatopoulou*¹ *1. NTUA, Athens, Greece*
[View Digest Text](#)

POSTER SESSION

Session VPA
NANOCRYSTALLINE AND AMORPHOUS SOFT
MAGNETS II
(Poster Session)

Takeshi Yanai, Co-Chair
 Nagasaki University, Nagasaki, Japan
Tetsuroh Kawai, Co-Chair
 Yokohama National University, Yokohama, Japan

- VPA-01. FeNi-based Nanocomposite Soft Magnetic Alloy Magnetic and Mechanical Property Tailoring Through Flash Annealing.** *L. Wewer*¹, *K. Byerly*³, *S. Kernion*³ and *P. Ohodnicki*^{1,2} *1. Mechanical Engineering and Materials Science, University of Pittsburgh, Pittsburgh, PA, United States; 2. Electrical and Computer Engineering, University of Pittsburgh, Pittsburgh, PA, United States; 3. CorePower Magnetics, Pittsburgh, PA, United States*
[View Digest Text](#)
- VPA-02. Withdrawn**
- VPA-03. Scaling the manufacturing of soft magnetic inductor cores for power conversion applications from 8-inch to 12-inch wafers.** *C. Falub*¹, *X. Zhao*², *J.H. Richter*², *H. Rohrmann*¹, *M. Tschirky*² and *M. Padrun*¹ *1. Research & Development, Evatec AG, Trübbach, Switzerland; 2. Business Unit Semiconductors, Evatec AG, Trübbach, Switzerland*
[View Digest Text](#)

- VPA-04. Microstructure and Magnetic Characterization on Ball-milled Fe-based Nanocrystalline Alloy Sheet.** *S. Nagata*¹, *Y. Horibe*¹, *S. Hiramoto*², *H. Narahara*¹, *N. Mori*¹, *I. Sasaki*¹, *M. Takezawa*¹, *Y. Ando*¹, *T. Shikayama*³, *S. Mukai*³, *S. Maeda*³, *S. Sakima*³, *T. Ishii*³ and *S. Motozuka*¹ *1. Kyushu Institute of Technology, Kitakyushu, Japan; 2. Tohoku Magnet Institute, Natori, Japan; 3. Yaskawa Electric Corporation, Kitakyushu, Japan*
[View Digest Text](#)
- VPA-05. Giant magnetoimpedance effect at GHz frequencies in amorphous microwires.** *A. Zhukov*^{1,2}, *M. Ipatov*^{2,3}, *P. Corte-Leon*^{2,3}, *J. Blanco*^{2,4} and *V. Zhukova*^{2,3} *1. Dept. Polym. and Advanced Mater., Universidad del Pais Vasco and Ikerbasque, San Sebastian, Spain; 2. Dept. Appl. Phys., Universidad del Pais Vasco, San Sebastian, Spain; 3. Dept. Polym. and Adv. Mater., Universidad del Pais Vasco, San Sebastian, Spain; 4. EHU Quantum Center, Universidad del Pais Vasco, San Sebastian, Spain*
[View Digest Text](#)
- VPA-06. Magnetic Properties of High-B_s Fe_{84.3}B₆P₉Cu_{0.7} Nanocrystalline Alloy Powder.** *M. Kuno*¹, *N. Onishi*¹, *M. Yamaki*¹, *Y. Imano*¹ and *A. Urata*¹ *1. Advanced materials R&D, TOKIN Corporation, Sendai, Japan*
[View Digest Text](#)
- VPA-07. Fast Propagation and Merger of Magnetic Domain Walls in Low Magnetostrictive Amorphous Submicrometric Wires.** *S. Corodeanu*¹, *C. Hlenschi*¹, *C. Rotarescu*¹, *H. Chiriac*¹, *N. Lupu*¹ and *T.A. Ovari*¹ *1. National Institute of Research and Development for Technical Physics, Iasi, Romania*
[View Digest Text](#)
- VPA-08. Heat and current annealing effects on magnetic properties of Fe-rich glass-coated amorphous microwires with different radius.** *A. Gonzalez Villegas*^{1,2}, *P. Corte-Leon*^{1,2}, *V. Zhukova*^{1,2}, *A. García-Gómez*^{1,2}, *M. Ipatov*^{1,2}, *J. Gonzalez*^{1,2}, *J. Blanco*² and *A. Zhukov*^{1,2} *1. Advanced Polymers and Materials: Physics, Chemistry and Technology, Universidad del País Vasco, San Sebastian, Spain; 2. Dpto. de Física Aplicada, EIG, Universidad del País Vasco, San Sebastian, Spain*
[View Digest Text](#)
- VPA-09. Fabrication of Fe-based nanocrystalline powder-pressed magnetic core with low coercivity and small iron loss.** *T. Kanaya*¹, *R. Ohta*¹, *M. Sonehara*¹ and *T. Sato*¹ *1. Electrical and Computer Engineering, Shinshu University, Nagano, Japan*
[View Digest Text](#)
- VPA-10. Magnetic Domain Observation of Milled Nanocrystalline Alloy Powder.** *M. Takezawa*¹, *T. Nagaki*¹, *S. Motozuka*¹, *I. Sasaki*^{1,2}, *Y. Ando*¹, *H. Narahara*¹, *N. Mori*¹, *T. Shikayama*², *S. Mukai*², *S. Maeda*², *S. Sakima*² and *T. Ishii*² *1. Kyushu Institute of Technology, Kitakyushu, Japan; 2. Yaskawa Electric Corporation, Kitakyushu, Japan*
[View Digest Text](#)

- VPA-11. **Magnetic Loss Modeling of Nanocrystalline Cores Considering Stack Thickness.** *W. Meng¹, Y. Li¹, C. Zhang¹, H. Sun¹ and Z. Wan¹* 1. *Hebei University of Technology, Tianjin, China*
[View Digest Text](#)
- VPA-12. **Anomalous magnetic anisotropy behaviour in Co-rich and Fe-rich glass-coated microwires under applied stress.** *A. García-Gómez^{1,2}, J. Blanco^{1,2}, P. Corte-Leon^{1,2}, M. Ipatov^{1,2}, A. Gonzalez Villegas^{1,2}, J. Gonzalez^{1,2}, A. Zhukov^{1,2} and V. Zhukova^{1,2}* 1. *Polymers and Advanced Materials: Physics, Chemistry and Technology, University of the Basque Country UPV/EHU, Donostia-San Sebastián, Spain*; 2. *Applied Physics Departement, University of the Basque Country UPV/EHU, Donostia-San Sebastián, Spain*
[View Digest Text](#)
- VPA-13. **Two-Dimensional Magnetostrictive Characteristics of Amorphous and Permendur Electric Power Magnetic Materials.** *M. Enokizono^{1,2} and D. Wakabayashi²* 1. *Vector magnetic characteristic technical laboratory, Usa, Japan*; 2. *Mechanical Electric Engineering, Nippon Bunri University, Oita, Japan*
[View Digest Text](#)
- VPA-14. **Structural Phase Transformation and Magnetic Properties Induced by Thermal Analysis with Different Gaseous Environments in Iron-Doped Manganese Oxide Nanoparticles.** *L. Huang¹, Y. Chen¹, Z. Huang¹, P. Chuang¹, A. Spivakov¹ and C. Lin¹* 1. *Department of Applied Physics, National Pingtung University, Pingtung, Taiwan*
[View Digest Text](#)

POSTER SESSION

Session VPB
SOFT MAGNETIC ALLOYS AND OXIDES II
(Poster Session)

Jan Fuzer, Chair
P.J. Safarik University, Kosice, Slovakia

- VPB-01. **Withdrawn**
- VPB-02. **One-pot solvothermal synthesis of dispersed Fe₃O₄ nanoparticles decorated on graphene oxide for magnetic hyperthermia.** *R. Lamouri¹ and K. Kim¹* 1. *Physics, Yeungnam University, Gyeongsan, The Republic of Korea*
[View Digest Text](#)

- VPB-03. Analysis on Iron Loss of Sendust Dust Cores based on Magnetization Reversal Processes.** *N. Ono¹, Y. Uehara², Y. Endo^{3,4}, S. Yoshida¹, N. Kikuchi¹ and S. Okamoto^{1,5}*
1. Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Sendai, Japan; 2. Magnetic Device Laboratory Ltd., Kawasaki, Japan; 3. Department of Electrical Engineering, Tohoku University, Sendai, Japan; 4. Center for Science and Innovation in Spintronics, Tohoku University, Sendai, Japan; 5. National Institute for Materials Science, Tsukuba, Japan
[View Digest Text](#)
- VPB-04. Tailoring of Surface Roughness and B2 Ordering in Fe₅₀Co₅₀ Single-Crystal Film for Enhancement of Magnetostriction.** *Y. Nakamura¹, M. Ohtake¹, T. Kawai¹, M. Futamoto¹ and N. Inaba²*
1. Faculty of Engineering, Yokohama National University, Yokohama, Japan; 2. Graduate School of Science and Engineering, Yamagata University, Yonezawa, Japan
[View Digest Text](#)
- VPB-05. PLD-fabricated Fe-Co films prepared by using different spot size of laser beam.** *A. Yamashita¹, H. Kaku¹, T. Yanai¹, M. Nakano¹ and H. Fukunaga¹*
1. Nagasaki University, Nagasaki, Japan
[View Digest Text](#)
- VPB-06. Cold Workability and Magnetic Properties of FeCo-V Alloys with the Addition of a Small Amount of Aluminum.** *K. Urakawa^{1,2}, M. Kasuya³, S. Sato⁴, K. Kanie¹, N. Owari², T. Ebata² and S. Suzuki⁵*
1. Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Sendai, Japan; 2. Tohoku Steel Co., Ltd., Murata-machi, Japan; 3. Faculty of Production Systems Engineering and Sciences, Komatsu University, Komatsu, Japan; 4. Graduate School of Science and Engineering, Ibaraki University, Hitachi, Japan; 5. Micro System Integration Center, Tohoku University, Sendai, Japan
[View Digest Text](#)
- VPB-07. Synthesis and characterization of single phase γ -Co₄₇Ni₂₂Al₃₁ Heusler alloy nanoparticles.** *D. Mahata¹ and A. Srinivasan¹*
1. Physics, IIT Guwahati, Guwahati, India
[View Digest Text](#)
- VPB-08. Effect of Annealing Temperature on Structure and Magnetic Properties of Ultra-thin High-Purity Iron Ribbons.** *X. Ma¹, R.Y. Umetsu², T. Miyazaki³, S. Mikami⁴, T. Hiraki⁴ and Y. Endo^{1,5}*
1. Department of Electrical Engineering, Tohoku University, Sendai, Japan; 2. Institute for Materials Research, Tohoku University, Sendai, Japan; 3. Faculty of Engineering, Tohoku University, Sendai, Japan; 4. R&D, TOHO ZINC Co., Ltd, Tokyo, Japan; 5. Center for Science and Innovation in Spintronics(CSIS), Tohoku University, Sendai, Japan
[View Digest Text](#)

- VPB-09. Feature analysis on B-H curves of dust cores under the application of DC bias field.** *T. Onuma*¹, *Z. Li*¹ and *S. Okamoto*^{1,2} *1. Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Sendai, Japan; 2. Center for Science and Innovation in Spintronics (CSIS), Tohoku University, Sendai, Japan*
[View Digest Text](#)
- VPB-10. Anisotropic FMR Peak Widths in Fe-Co Single Crystal Thin Films.** *S. Umetsu*¹, *M. Sato*¹, *Y. Takahashi*¹, *N. Inaba*¹, *F. Kirino*², *M. Ohtake*³ and *M. Futamoto*³ *1. Graduate School of Science and Engineering, Yamagata University, Yonezawa, Japan; 2. Tokyo University of the Arts, Tokyo, Japan; 3. Yokohama National University, Yokohama, Japan*
[View Digest Text](#)
- VPB-11. Measurement and Evaluation of Magnetic Barkhausen Noise of Oriented Silicon Steel Sheet under Mechanical Stress.** *Y. Yao*¹ and *L. Li*¹ *1. State Key Laboratory of Alternate Electrical Power System with Renewable Energy Sources, North China Electric Power University, Beijing, China*
[View Digest Text](#)
- VPB-12. Thickness Dependent Magnetic Properties of Electrodeposited Co₂FeSn Films.** *P. Pathak*¹ and *A. Srinivasan*¹ *1. Physics, IIT Guwahati, Guwahati, India*
[View Digest Text](#)
- VPB-13. Study on the Effect of Cutting Process on the Magnetic Properties of Electrical Steel with Different Si Content for Motor.** *D. Ma*¹, *B. Tian*¹, *Y. Li*¹, *H. Hu*¹, *Y. Ma*¹ and *R. Pei*¹ *1. Department of electrical Engineering, Shenyang University of Technology, Shenyang city, China*
[View Digest Text](#)
- VPB-14. Crossed Anisotropy Multilayered Nanogranular Films Combining High Permeability, Ferromagnetic Resonance Frequency, and Resistivity.** *M. Naoe*¹, *M. Sonehara*², *K. Miyaji*², *T. Sato*², *Y. Endo*³, *N. Kobayashi*¹ and *K. Arai*¹ *1. Research Institute for Electromagnetic Materials, Tomiya, Japan; 2. Shinshu University, Nagano, Japan; 3. Tohoku University, Sendai, Japan*
[View Digest Text](#)

Session WOA
HARD MAGNETIC MATERIALS I

Thibaut Devillers, Chair
 Institut Néel CNRS, Grenoble, France

- WOA-01. Understanding the Coercivity of Ga-containing Nd-Fe-B Sintered Magnets from Feature Extraction and Selection of X-ray Diffraction Patterns by Dimension Reduction and Sparse Modelling. (Invited)** *K. Ishigami*^{1,2}, *T. Onuma*^{1,2}, *A. Kato*^{3,2}, *M. Yano*^{3,2}, *T. Shoji*^{3,2}, *T. Nakamura*^{4,2} and *S. Okamoto*^{1,2} *1. Institute of Multidisciplinary Research for Advanced Materials (IMRAM), Tohoku University, Sendai, Japan; 2. Digital Transformation Initiative Center for Magnetic Materials (DXMag), National Institute for Materials Science (NIMS), Tsukuba, Japan; 3. Advanced Material Engineering Division, Toyota Motor Corporation, Susono, Japan; 4. International Center for Synchrotron Radiation Innovation Smart (SRIS), Tohoku University, Sendai, Japan*
[View Digest Text](#)

- WOA-02. Tomography-based Digital Twins of Nd-Fe-B Magnets for Micromagnetic Simulations.** *A. Bolyachkin*^{1,2}, *E. Dengina*^{2,3}, *N. Kulesh*², *X. Tang*^{2,1}, *H. Sepehri-Amin*^{2,3}, *T. Ohkubo*² and *K. Hono*^{2,3} *1. International Center for Young Scientists, National Institute for Materials Science (NIMS), Tsukuba, Japan; 2. Research Center for Magnetic and Spintronic Materials, National Institute for Materials Science (NIMS), Tsukuba, Japan; 3. Faculty of Pure and Applied Sciences, University of Tsukuba, Tsukuba, Japan*
[View Digest Text](#)

- WOA-03. Magnetic Hardening of Neodymium-lean Permanent Magnets by Local Replacement of Grains by High Anisotropy Phases.** *J. Fischbacher*^{1,2}, *H. Oezelt*^{1,2}, *A. Kovacs*^{1,2}, *Q. Ali*^{1,2}, *M. Yano*³, *N. Sakuma*³, *A. Kinoshita*³, *T. Shoji*³, *A. Kato*³ and *T. Schrefl*^{1,2} *1. Department for Integrated Sensor Systems, University for Continuing Education Krems, Wiener Neustadt, Austria; 2. Christian Doppler Laboratory for magnet design through physics informed machine learning, University for Continuing Education Krems, Wiener Neustadt, Austria; 3. Advanced Materials Engineering Division, Toyota Motor Corporation, Susono, Japan*
[View Digest Text](#)

- WOA-04. Development of Dy-free sintered NdFeB magnet through grain boundary engineering by diffusion of PrCu alloys.** *W. Tang*¹, *G. Ouyang*¹, *J. Wang*¹, *H. Dasari*², *M.J. Kramer*¹, *J. Cui*^{1,2} and *I.E. Anderson*^{1,2} *1. Ames Laboratory, US Department of Energy, Ames, IA, United States; 2. Materials Science & Engineering, Iowa State University, Ames, IA, United States*
[View Digest Text](#)

- WOA-05. High resistivity anisotropic hot-deformed Nd-Fe-B magnets prepared from DyF₃ electrophoretic deposited powders.** Z. Kautsar^{1,2}, H. Sepehri-Amin^{1,2}, X. Tang^{2,3}, R. Iguchi², K. Uchida^{2,4}, T. Ohkubo² and K. Hono^{1,2}
1. Graduate School of Science and Technology, University of Tsukuba, Tsukuba, Japan; 2. Research Center for Magnetic and Spintronic Materials, National Institute for Materials Science (NIMS), Tsukuba, Japan; 3. International Center for Young Scientist, National Institute for Materials Science (NIMS), Tsukuba, Japan; 4. Institute for Materials Research, Tohoku University, Sendai, Japan
[View Digest Text](#)
- WOA-06. Nd-Fe-B Hydrogenation-Disproportionation-Dehydrogenation-Recombination (HDDR) magnet for variable magnetic flux motor.** K. Takeda¹, S. Miyazaki¹, T. Kajita¹ and Y. Enokido¹
1. Technology & Intellectual Property HQ, TDK Corporation, Narita, Japan
[View Digest Text](#)
- WOA-07. Withdrawn**
- WOA-08. Withdrawn**
- WOA-09. (Nd, LRE)-Fe-B hot-deformed magnets for application of variable-magnetic-force motors.** X. Tang¹, H. Sepehri-Amin¹, A. Bolyachikin¹, T. Ohkubo¹ and K. Hono¹
1. National Institute for Materials Science (NIMS), Tsukuba, Japan
[View Digest Text](#)
- WOA-10. Unconventional Alloy Design for the Additive Manufacturing of (Pr, Nd)-Fe-B based Permanent Magnets.** L. Schäfer¹, K. Skokov¹, F. Maccari¹, D. Koch¹, E. Adabifiroozjaei¹, L. Molina-Luna¹ and O. Gutfleisch¹
1. Materials Science, Technical University Darmstadt, Darmstadt, Germany
[View Digest Text](#)
- WOA-11. Effect of Nd-Cu Doping on the Grain Alignment and Magnetic Properties of Ce-Fe-B Hot-deformed Magnets.** H. Choi^{1,2}, H. Cha¹, H. Choi-Yim² and J. Lee¹
1. Korea Institute of Materials Science, Changwon, The Republic of Korea; 2. Sookmyung Women's University, Seoul, The Republic of Korea
[View Digest Text](#)
- WOA-12. Achieving 2.8 T coercivity in Nd-Fe-B sintered magnets subjected to DyCu and PrCu grain boundary diffusion process. (Invited)** Z. Wang¹, T. Sasaki¹, Y. Une², T. Ohkubo¹ and K. Hono¹
1. National Institute for Materials Science (NIMS), Tsukuba, Japan; 2. Daido Steel Co. Ltd., Nagoya, Japan
[View Digest Text](#)
- WOA-13. Dual-main-phase Ce magnets designed by two main phases with different magnetocrystalline anisotropy: the effect of Ce chemical state.** M. Zhu¹, Q. Sun¹, Y. Fang¹ and W. Li¹
1. Central Iron & Steel Research Institute, Beijing, China
[View Digest Text](#)

- WOA-14. Achievement of 2.3T Coercivity in HRE-free Nd-Fe-B Sintered Magnets via TaF₅-Pr₇₀Cu₁₅Al₁₀Ga₅ Two-step Infiltration.** S. Lee^{1,2}, T. Kim¹, S. Lee³, D. Kim³, W. Lee² and J. Lee¹ 1. Korea Institute of Materials Science, Changwon, The Republic of Korea; 2. Yonsei University, Seoul, The Republic of Korea; 3. Star group Ind. Co., Deagu, The Republic of Korea
[View Digest Text](#)

ORAL SESSIONS

Session WOB HARD MAGNETIC MATERIALS II

Lars Daniel Hedlund, Chair
Northeastern University, Boston, MA, United States

- WOB-01. Restricted grain growth and role of Nb precipitates in Nd-Fe-Nb-B melt spun ribbon.** B. Muni^{1,2}, P. Delhi Babu², M. Sadhashivam¹, K. Pradeep¹, G. Sundararajan^{1,2} and R. Gopalan^{2,1} 1. Metallurgical and Materials Engineering, Indian Institute of Technology Madras, Chennai, India; 2. CAEM, International Advanced Research Centre for Powder Metallurgy and New Materials, Chennai, India
[View Digest Text](#)
- WOB-02. Modeling the Impact of Laser Powder Bed Fusion on Nd-Fe-B Permanent Magnets.** J. Thielsch¹, F. Bittner¹ and W. Drossel^{1,2} 1. Fraunhofer Institute for Machine Tools and Forming Technology IWU, Dresden, Germany; 2. Chemnitz University of Technology, Chemnitz, Germany
[View Digest Text](#)
- WOB-03. Development of recycling friendly coatings for Nd-Fe-B magnets.** B. Podmiljsak¹, L. Grau², C. Burkhardt² and S. Kobe¹ 1. Institut Jozef Stefan, Ljubljana, Slovenia; 2. Institute for Precious and Technology Metals, Pforzheim, Germany
[View Digest Text](#)
- WOB-04. High magnetic performance of Nd-Fe-B sintered magnets by grain boundary diffusion with LRE-Al-Cu (LRE= La, Nd, and Pr.) alloys.** J. Ryeong¹, H. Lee², H. Lee¹ and W. Lee¹ 1. Department of Materials Science and Engineering, Yonsei University, Seodaemun-gu, The Republic of Korea; 2. Hyundai Motor Company, Hwaseong, The Republic of Korea
[View Digest Text](#)
- WOB-05. Influence of filler fraction and morphology on magnetic performance of polymer bonded magnets produced by laser powder bed fusion. (Invited)** K. Schäfer¹, T. Braun¹, S. Riegg¹, J. Musekamp² and O. Gutfleisch¹ 1. Materials Science, Functional Materials, Darmstadt, Germany; 2. Institute for Materials Technology, Darmstadt, Germany
[View Digest Text](#)

- WOB-06. Low-temperature Manufacturable, Recyclable and Reconfigurable Liquid-metal Bonded NdFeB Magnets.** R. Zhao^{2,1}, H. Wang², Y. Shi², Z. Zhu^{3,4} and B. Zhang⁵
1. Quanzhou Institute of Equipment Manufacturing of Haixi Institutes, Chinese Academy of Sciences, Quanzhou, China; 2. Zhongyuan-Petersburg Aviation Colledge, zhongyuan University of Technology, Zhengzhou, China; 3. Nanchang Institute of Technology, Nanchang, China; 4. Zhejiang Sci-Tech University, Hangzhou, China; 5. Henan University of Animal Husbandry and Economy, Zhengzhou, China
[View Digest Text](#)
- WOB-07. Cu-containing SmFe₁₂-based sintered magnets with high coercivity.** S. Ashok Krishnaswamy^{1,2}, X. Tang², H. Sepehri-Amin^{1,2}, J. Zhang², T. Ohkubo² and K. Hono^{1,2} 1. University of Tsukuba, Tsukuba, Japan; 2. National Institute for Materials Science (NIMS), Tsukuba, Japan
[View Digest Text](#)
- WOB-08. Grain boundary engineering of Nd-based ThMn₁₂ magnets and their nitrides.** A. Aubert¹, X. Liao¹, F. Maccari¹, S. Riegg¹, S. Ener¹, E. Adabifiroozjaei¹, T. Jiang¹, L. Molina-Luna¹, K. Skokov¹ and O. Gutfleisch¹
1. TU Darmstadt, Darmstadt, Germany
[View Digest Text](#)
- WOB-09. Magnetic Properties and Phase Transformation of Sm-Fe-Co-X (X = Ga, V, B, Si, and Ti) Permanent Magnetic Materials.** C. Choi¹, T. Zhou¹, K. Jong-Woo² and j. Park¹ 1. Powder Materials Division, Korea Institute of Materials Science, Changwon, The Republic of Korea; 2. Ceramic Materials Division, Korea Institute of Materials Science, Changwon, The Republic of Korea
[View Digest Text](#)
- WOB-10. Energy based model for twin boundary prediction in Sm-Fe-Co 1:12.** G. Hrkac¹, C. Skelland¹ and T. Schrefl²
1. Engineering, University of Exeter, Exeter, United Kingdom; 2. University for Continuing Education Krems, Krems, Austria
[View Digest Text](#)
- WOB-11. Microstructural features of strip-cast Nd(Fe,Mo)₁₂ based alloys.** S. Luca¹, C. Flament¹, R. Sedek^{1,2} and P. De Rango²
1. Univ. Grenoble Alpes, CEA, Liten, DTNM, Grenoble, France; 2. Univ. Grenoble Alpes, CNRS, Institut Neel, Grenoble, France
[View Digest Text](#)
- WOB-12. Magnetic properties enhancement and microstructures in anisotropic Sm(Fe,Ti,V)₁₂-based sintered magnets.** J. Zhang¹, X. Tang¹, A. Bolyachkin¹, S. Ashok Krishnaswamy^{1,2}, H. Sepehri-Amin¹, T. Ohkubo¹ and K. Hono^{1,2} 1. Research Center for Magnetic and Spintronic Materials, National Institute for Materials Science (NIMS), Tsukuba, Japan; 2. Graduate School of Science and Technology, University of Tsukuba, Tsukuba, Japan
[View Digest Text](#)

WOB-13. Development of TbCu₇-type Sm-Fe-N anisotropic magnet powder by low-temperature build-up process using molten salt. S. Sato¹, E. Node² and S. Okada² 1. *Materials Research Center; Technology & IP HQ, TDK corporation, Narita, Japan*; 2. *Magnetic Powder Metallurgy Research Center, National Institute of Advanced Industrial Science and Technology (AIST), Nagoya, Japan*
[View Digest Text](#)

WOB-14. Sm-Fe Binary Phases Synthesized at Low temperature by Reduction-Diffusion Process. J. Kim¹, S. Okada¹, K. Takagi¹ and K. Ozaki¹ 1. *Magnetic Powder Metallurgy Research Center, National Institute of Advanced Industrial Science and Technology (AIST), Nagoya, Japan*
[View Digest Text](#)

ORAL SESSIONS

Session WOC

HARD MAGNETIC MATERIALS III

Hisashi Maehara, Co-Chair
Nichia Corporation, Anan-shi, Japan

Hiroaki Kura, Co-Chair
Denso Corporation, Kariya, Japan

WOC-01. Preparation of Sm-Fe-N hard magnetic nanopowder from micron-sized Sm-H and Fe mixed powder. Y. Hirayama¹, L. Zheng¹, W. Yamaguchi¹, K. Takagi¹ and K. Ozaki¹
1. *National Institute of Advanced Industrial Science and Technology (AIST), Nagoya, Japan*
[View Digest Text](#)

WOC-02. Effects of Nb and B addition on intrinsic magnetic properties and phase on TbCu₇-type Sm-Fe-Co-Nb-B alloy. N. Kurokawa¹, M. Matsuura¹, S. Sakurada² and S. Sugimoto¹ 1. *Graduate School of Engineering, Tohoku University, Sendai, Japan*; 2. *Toshiba Corporation, Kawasaki, Japan*
[View Digest Text](#)

WOC-03. Direct consolidation of Sm₂Fe₁₇N₃ magnet and coercivity improvement by severe plastic deformation. A. Hosokawa¹ and Y. Hirayama¹ 1. *National Institute of Advanced Industrial Science and Technology (AIST), Nagoya, Japan*
[View Digest Text](#)

WOC-04. Development of Sm₂Fe₁₇N₃ magnetic powder doped with La, W, and Ti. H. Maehara¹ and M. Kume¹ 1. *Magnet Material Development, NICHIA CORPORATION, Anan-shi, Japan*
[View Digest Text](#)

WOC-05. Evaluation of Practicality for Fully Dense Isotropic Sm-Fe-N Magnets Made by Shock-Wave Consolidation Method. S. Takagi¹, K. Morii¹, T. Iriyama¹, K. Tominaga², N. Wada², E. Hida² and Y. Yamada² 1. *Corporate R&D Center, Daido Steel Co., Ltd., Nagoya, Japan*; 2. *Explosives Division, ASAHI KASEI CORPORATION, Chikushino, Japan*
[View Digest Text](#)

- WOC-06. Effect of Mn doping on magnetic properties, magnetic domain structures and microstructures of 2-17 type Sm-Co magnets.** *H. Machida*¹, *T. Fujiwara*¹, *C. Fujimoto*¹, *Y. Kanamori*¹, *K. Inoue*² and *M. Takezawa*² *1. TOKIN Corporation, Sendai, Japan; 2. Kyushu Institute of Technology, Kitakyushu, Japan*
[View Digest Text](#)
- WOC-07. The role of initial defect on the cellular structure evolution in Fe-rich Sm₂Co₁₇-type magnets.** *Q. Li*^{1,2} and *Y. Fang*¹
1. Central Iron & Steel Research Institute, Beijing, China; 2. University of Science and Technology Beijing, Beijing, China
[View Digest Text](#)
- WOC-08. Anomalous Reduction in Magnetization of Sm₂Fe₁₇N₃ Anisotropic Sintered Magnets during Pressure Current Sintering.** *W. Yamaguchi*¹, *A. Hosokawa*¹ and *K. Takagi*¹
1. Magnetic Powder Metallurgy Research Center, National Institute of Advanced Industrial Science and Technology (AIST), Nagoya, Japan
[View Digest Text](#)
- WOC-09. Mechanism for Strengthening High-Performance Sm-Co Magnets.** *C.I. Nlebedim*¹, *X. Liu*¹, *J. Cui*^{1,2} and *B. Cui*¹
1. Critical Materials Institute, Ames Laboratory, US Department of Energy, Ames, IA, United States; 2. Materials Science and Engineering, Iowa State University, Ames, IA, United States
[View Digest Text](#)
- WOC-10. An Atomistic Study of Plastic Deformation of SmCo₅ by Amorphous Shear Bands.** *N. Wang*^{1,2}, *H. Luo*^{2,3}, *L. Liu*^{2,3}, *Y. Ding*^{2,3}, *R. Chen*^{2,3}, *X. Zhang*¹, *X. Yao*¹, *I. Szlufarska*⁴ and *A. Yan*^{2,3} *1. Shanxi Key Laboratory of Biomedical Metal Materials, College of Materials Science and Engineering, Taiyuan University of Technology, Taiyuan, China; 2. Joint Innovation Center for Rare Earth Permanent Magnets, Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences, Ningbo, China; 3. Key Laboratory of Magnetic Materials and Devices, Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences, Ningbo, China; 4. Department of Materials Science and Engineering, University of Wisconsin, Madison, WI, United States*
[View Digest Text](#)
- WOC-11. Heat treatment effect on magnetic properties of Sm-Co nanopowder prepared by induction thermal plasma process.** *K. Park*¹ and *Y. Hirayama*¹ *1. National Institute of Advanced Industrial Science and Technology (AIST), Nagoya, Japan*
[View Digest Text](#)
- WOC-12. Mechanical and Magnetic Properties of Additive Particulate-modified Sm-Co Sintered Magnets.** *B. Cui*¹, *X. Liu*¹, *C.I. Nlebedim*¹ and *J. Cui*¹ *1. Ames Laboratory, US Department of Energy, Ames, IA, United States*
[View Digest Text](#)

WOC-13. A machine learning assisted high throughput study of NdCeLaFeB films. *Y. Hong*¹, *S. Grenier*¹, *T. Devillers*¹, *A. Kovacs*^{2,3}, *H. Oezelt*^{2,3}, *M. Yano*⁴, *N. Sakuma*⁴, *A. Kinoshita*⁴, *T. Shoji*⁴, *A. Kato*⁴, *T. Schrefl*^{2,3} and *N. Dempsey*¹ *1. Institut Néel CNRS, Grenoble, France; 2. Christian Doppler Laboratory for magnet design through physics informed machine learning, Danube University Krems, Wiener Neustadt, Austria; 3. Department for Integrated Sensor Systems, Danube University Krems, Wiener Neustadt, Austria; 4. Advanced Materials Engineering Div., Toyota Motor Corporation, Mishuku Susono, Japan*
[View Digest Text](#)

WOC-14. Recycling and Enrichment of Rare Earth Based Permanent Magnet Scraps. *D. Celebi*¹, *S. Ghorbanighoshchi*¹, *N. Gunduz Akdogan*² and *O. Akdogan*¹ *1. Bahcesehir University, Istanbul, Turkey; 2. Piri Reis University, Istanbul, Turkey*
[View Digest Text](#)

ORAL SESSIONS

Session WOD

HARD MAGNETIC MATERIALS IV

Yusuke Hirayama, Chair

National Institute of Advanced Industrial Science and Technology (AIST), Nagoya, Japan

WOD-01. Generalised Form of the Magnetic Anisotropy Field in Micromagnetic and Atomistic Spin Models. *J.B. Collings*¹, *R. Rama-Eiroa*^{2,3}, *S. Jenkins*¹, *R. Otxoa*⁴, *R.F. Evans*¹ and *R.W. Chantrell*¹ *1. University of York, York, United Kingdom; 2. Donostia International Physics Centre, San Sebastian, Spain; 3. Polymers and Advanced Materials Department: Physics, Chemistry, and Technology, University of the Basque Country, UPV/EHU, San Sebastian, Spain; 4. Hitachi Cambridge Laboratory, Cambridge, United Kingdom*
[View Digest Text](#)

WOD-02. Experimental Determination of Anisotropy Fields, First and Second Anisotropy Constants, and Remanent Magnetizations in Self-Polarized Zn-Ti and Co-Ti Equally Co-Substituted BaM Ferrites. *A. Hoesz*¹, *A. Chevalier*¹ and *J. Mattei*¹ *1. Université de Bretagne Occidentale, Brest, France*
[View Digest Text](#)

WOD-03. Highly Coercive Ferrite Nanocomposite Powder with Enhanced Thermal Stability and No-content of Critical Raw Elements. *A. Bollero*¹, *A. Fernández-Calzado*¹, *E.M. Palmero*¹, *C.M. Montero*¹, *S. Ener*², *O. Gutfleisch*², *D. Makovec*³, *J. Grenèche*⁴ and *P. Bernardi*⁵ *1. Group of Permanent Magnets and Applications, IMDEA Nanoscience, Madrid, Spain; 2. Functional Materials, Material Science, TU Darmstadt, Darmstadt, Germany; 3. Department for Materials Synthesis, Jozef Stefan Institute, Ljubljana, Slovenia; 4. Institut des Molécules et Matériaux du Mans, Le Mans Université, Le Mans, France; 5. Industrie ILPEA Spa, Malgesso-Varese, Italy*
[View Digest Text](#)

- WOD-04. Magnetic properties of α'' -Fe₁₆N₂ nanopowder.** T. Saito¹ and H. Yamamoto² 1. Chiba Institute of Technology, Narashino, Japan; 2. NEOJI-CONSUL, Kyoto, Japan
[View Digest Text](#)
- WOD-05. Quadrupole electronic structures in Mn₃₋₈Ga thin films studied by XMLD and ARPES.** J. Okabayashi¹, Y. Miura², K. Tanaka³, K. Suzuki⁴ and S. Mizukami⁵ 1. University of Tokyo, Tokyo, Japan; 2. National Institute for Materials Science (NIMS), Tsukuba, Japan; 3. Institute for Molecular Science, Aichi, Japan; 4. JAEA, Ibaraki, Japan; 5. Tohoku Univ., Sendai, Japan
[View Digest Text](#)
- WOD-06. Optimisation of Ga-doped τ -MnAl for use as a permanent magnetic material.** E.V. Davis-Fowell¹, N. Morley¹, D. Allwood¹ and R. Goodall¹ 1. Department of Material Science and Engineering, The University of Sheffield, Sheffield, United Kingdom
[View Digest Text](#)
- WOD-07. Production of a single crystalline ϵ -MnAl powder precursor material.** F. Jürries^{1,2}, B. Lukas^{1,3}, N. Kornelius^{1,2} and T. Woodcock¹ 1. Leibniz Institute for Solid State and Materials Research (IFW) Dresden, Dresden, Germany; 2. TU Dresden, Dresden, Germany; 3. TU Bergakademie Freiberg, Freiberg, Germany
[View Digest Text](#)
- WOD-08. Towards the Industrial Production of MnAlC as a Rare Earth-free Permanent Magnet Alternative: Coercivity Development in Cast and Milled MnAlC Alloy.** A. Martín-Cid¹, J. Vergara-Ortega¹, C. Muñoz Rodríguez¹, E.M. Palmero¹, G. Qin², C. Hall², E. Forlin³, L. Bianchin³, S. Ener⁴, O. Gutfleisch⁴ and A. Bollero¹ 1. IMDEA nanociencia, Madrid, Spain; 2. Less Common Metals Ltd., Ellesmere Port, United Kingdom; 3. MBN Nanomaterialia S.p.A, Vascon di Carbonera, Italy; 4. Technical University of Darmstadt, Darmstadt, Germany
[View Digest Text](#)
- WOD-09. Magnetic, physical and chemical properties of consolidated Mn-Al-C bulk magnets.** S. Ener¹, U. Rocabert¹, F. Maccari¹, A. Aubert¹, G. Qin², A. Martín-Cid³, A. Bollero³ and O. Gutfleisch¹ 1. Functional Materials, TU Darmstadt, Darmstadt, Germany; 2. Less Common Metal Ltd., Cheshire, United Kingdom; 3. IMDEA Nanociencia, Madrid, Spain
[View Digest Text](#)
- WOD-10. BH curves of Anisotropic Alnico Magnets.** A. Ibrayeva¹, E. Lind¹, M. Silva¹, S. Ghorai² and S. Eriksson¹ 1. Electrical Engineering, Uppsala University, Uppsala, Sweden; 2. Material Science and Engineering, Uppsala University, Uppsala, Sweden
[View Digest Text](#)
- WOD-11. Withdrawn**

- WOD-12. Exploration of functional properties of all-3d transition metal Heusler alloys.** *M. Marathe*¹ and *H.C. Herper*¹
1. Department of physics and astronomy, Uppsala University, Uppsala, Sweden
[View Digest Text](#)
- WOD-13. Magnetic properties of monoclinic Fe₃Se₄ doped with transition metals.** *A. Alsaad*¹, *H. Zeng*², *N. Alaqtash*⁴ and *R. Sabirianov*³ *1. Physics, Jordan University of Science and Technology, Irbid, Jordan; 2. Physics, SUNY Buffalo, Buffalo, NY, United States; 3. Physics, University of Nebraska at Omaha, Omaha, NE, United States; 4. Hashemite University, Zarqa, Jordan*
[View Digest Text](#)
- WOD-14. Fabrication of L1₀-FeNi from compositional optimized amorphous alloys.** *Y. Wang*¹, *Y. Zhang*², *Z. Hao*¹ and *C. Cao*¹
1. Northwestern Polytechnical University, Xi'an, China; 2. Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences, Ningbo, China
[View Digest Text](#)
- WOD-15. Development of Hard Magnetic Composite MnAlC / Hydrogel Inks for Manufacturing Alternative Permanent Magnets by 3D-Printing.** *Z. Curbelo-Cano*¹, *E.M. Palmero*¹, *C.M. Montero*¹, *J. de Vicente*¹ and *A. Bollero*¹ *1. Group of Permanent Magnets and Applications, IMDEA Nanociencia, Madrid, Spain*
[View Digest Text](#)

POSTER SESSION

Session WPA HARD MAGNETIC MATERIALS V (Poster Session)

Nora Dempsey, Chair
Institut Néel CNRS, Grenoble, France

- WPA-01. Contribution of Nd-rich alloys to the multi-main-phase LaCe-based sintered magnets with high coercivity.** *H. Chen*¹, *W. Liu*¹, *Y. Li*¹, *H. Zhang*¹ and *M. Yue*¹ *1. Beijing University of Technology, Beijing, China*
[View Digest Text](#)
- WPA-02. Effect of Phosphate Treatment on Corrosion Resistance of Nd-Fe-B Anisotropic Magnetic Powder.** *K. Shimba*¹, *M. Yamazaki*¹, *S. Sugimoto*² and *H. Mitarai*¹ *1. Aichi Steel Corporation, Tokai, Japan; 2. Tohoku University, Sendai, Japan*
[View Digest Text](#)
- WPA-03. DEM simulation of the single-directional pressed and double-directional pressed Nd-Fe-B compacts.** *K. Zhu*¹, *X. Bao*¹, *J. Li*¹, *S. Guan*¹ and *X. Gao*¹ *1. State Key Laboratory for Advanced Metals and Materials, University of Science and Technology Beijing, Beijing, China*
[View Digest Text](#)

- WPA-04. Solidification Characteristics and Microstructure Evolutions of $\text{RE}_2\text{Fe}_{14}\text{B}$ ($\text{RE}=\text{Ce}, \text{Y}, \text{La}$) Alloys.** A. Li¹, H. Feng¹, W. Yang¹ and W. Li¹ *1. Division of Functional Materials, Central Iron & Steel Research Institute, Beijing, China*
[View Digest Text](#)
- WPA-05. Coercivity enhancement of NdFeB sintered magnets by grain boundary diffusion with $\text{Tb}_{75-x-y}\text{Al}_x\text{Ce}_y\text{Cu}_{20}\text{Zn}_5$ alloy powders ($x=0-40$; $y=0-25$).** Y. Wong¹, H. Chang¹ and W.C. Chang¹ *1. Physics, National Chung Cheng University, ChiaYi, Taiwan*
[View Digest Text](#)
- WPA-06. Comparison on the coercivity enhancement of hot-deformed NdFeB magnets by doping $\text{Ce}_{80}\text{M}_{20-x}\text{Zn}_x$ ($\text{M}=\text{Cu}, \text{Al}$; $x=0-20$) alloy powders.** H. Chang¹, Y. Wong¹, P. Lin¹ and W.C. Chang¹ *1. Physics, National Chung Cheng University, ChiaYi, Taiwan*
[View Digest Text](#)
- WPA-07. Coercivity and Surface Morphology of Pr-Fe-B Thicker Films at Elevated Temperature.** A. Sun¹ and L.T. Tran¹ *1. Yuan Ze University, Taoyuan, Taiwan*
[View Digest Text](#)
- WPA-08. The effect of annealing temperature on grain boundary structure and magnetic properties of Nd-Ce-Gd-Fe-B sintered magnet.** H. Yu¹, X. Bao¹, S. Guan¹, J. Li¹ and X. Gao¹ *1. University of Science and Technology Beijing, Beijing, China*
[View Digest Text](#)
- WPA-09. Preparation of Nd-Fe-B thick-film magnets by vacuum arc deposition for device applications.** K. Otsuka¹, T. Motomura¹, A. Yamashita¹, T. Yanai¹, H. Fukunaga¹, K. Nagai², T. Shinshi² and M. Nakano¹ *1. Nagasaki University, Nagasaki, Japan; 2. Tokyo Institute of Technology, Yokohama, Japan*
[View Digest Text](#)
- WPA-10. Phase Stability and Magnetic Properties in Pr-Fe-(C, B) System.** Z. Bai¹, H. Zhang¹, E. Fu¹, W. Liu¹ and M. Yue¹ *1. Beijing University of Technology, Beijing, China*
[View Digest Text](#)
- WPA-11. Withdrawn**
- WPA-12. Effect of Hot Pressure Condition on the Magnetic Performance of $(\text{Nd}_{0.6}\text{Ce}_{0.4})\text{-Fe-B}$ Hot-deformed Magnets.** W. Kim¹, Y. Jang¹, H. Lee¹, P. Choi¹, K. Shin¹ and W. Lee¹ *1. Department of Materials Science & Engineering, Yonsei University, Seoul, The Republic of Korea*
[View Digest Text](#)
- WPA-13. PLD-fabricated (Nd or Pr)-Fe-B Thick-film Magnets Applied to Small Stepping Motors.** K. Kono¹, M. Sakuragi¹, A. Yamashita¹, T. Yanai¹, H. Fukunaga¹ and M. Nakano¹ *1. Nagasaki University, Nagasaki, Japan*
[View Digest Text](#)

WPA-14. Spin Glass Interface Mediates Intergranular Exchange in Nd₂Fe₁₄B. *J.B. Collings*¹, *R.W. Chantrell*¹ and *R.F. Evans*¹
1. University of York, York, United Kingdom
[View Digest Text](#)

WPA-15. Nd–Fe–B films prepared by low temperature process.
*K. Higashi*¹, *I. Fukuda*¹, *A. Yamashita*¹, *T. Yanai*¹,
*H. Fukunaga*¹, *K. Nagai*², *T. Shinshi*² and *M. Nakano*¹
1. Nagasaki University, Nagasaki, Japan; 2. Tokyo Institute of Technology, Yokohama, Japan
[View Digest Text](#)

POSTER SESSION

Session WPB
HARD MAGNETIC MATERIALS VI
(Poster Session)

George Hadjipanayis, Chair
University of Delaware, Newark, United States

WPB-01. Nd–Fe–B Thick-film Magnets on Si Substrates with Al–O Underlayers. *H. Yamaguchi*¹, *K. Higuchi*¹, *H. Kaku*¹,
*A. Yamashita*¹, *T. Yanai*¹, *H. Fukunaga*¹, *K. Nagai*²,
*T. Shinshi*² and *M. Nakano*¹ *1. Nagasaki University, Nagasaki, Japan; 2. Tokyo Institute of Technology, Yokohama, Japan*
[View Digest Text](#)

WPB-02. Withdrawn

WPB-03. Achievement of high coercivity for Sm(Fe-Co)-B thin films by appropriate heat treatment after Al deposition.
*Y. Mori*¹, *M. Kambayashi*¹, *M. Doi*¹ and *T. Shima*¹ *1. Tohoku Gakuin University, Tagajo, Japan*
[View Digest Text](#)

WPB-04. Effect of Cu Addition on Magnetic Properties and Microstructures of SmFe₁₁Ti Alloys Prepared by Melt-Spinning. *H. Lee*¹ and *J. Kim*¹ *1. Hanyang University, Ansan, The Republic of Korea*
[View Digest Text](#)

WPB-05. Magnetic properties and microstructures of Ce_xSm_{0.8-x}Zr_{0.2}(Fe_{0.8}Co_{0.2})_{11.5}Ti_{0.5} (x=0-0.8) alloys with ThMn₁₂ structure prepared by melt-spinning method. *F. Liu*¹,
*H. Feng*¹, *X. Sun*^{1,2} and *H. Zhao*¹ *1. Central Iron & Steel Research Institute, Beijing, China; 2. Digital R&D Center of China Iron & Steel Research Institute Co., Ltd., Beijing, China*
[View Digest Text](#)

- WPB-06. Assessment of Directionally Solidified Eutectic Sm–Fe(Co)–Ti Alloys as Permanent Magnet Materials.** A. Gabay¹, C. Han², C. Ni² and G. Hadjipanayis^{1,3}
1. Department of Physics and Astronomy, University of Delaware, Newark, DE, United States; 2. Department of Materials Science and Engineering, University of Delaware, Newark, DE, United States; 3. Department of Chemical Engineering, Northeastern University, Boston, MA, United States
[View Digest Text](#)
- WPB-07. Achievement of high saturation magnetization and coercivity on ThMn₁₂-type Sm-Zr-Fe-Co-Ti-Cu-B alloys.** H. Makuta¹ and T. Fujiwara¹ *1. Tokin Corporation, Sendai, Japan*
[View Digest Text](#)
- WPB-08. Increase in coercivity of Sm(Fe-Co)₁₂-B thin films by diffusion from trench side.** S. Hatanaka¹, Y. Mori¹, M. Doi¹ and T. Shima¹ *1. Tohoku Gakuin University, Sendai-shi, Japan*
[View Digest Text](#)
- WPB-09. Enhancement of Maximum Energy Product by α -Fe Coating on the Side of Rectangular Sm(Fe_{0.8}Co_{0.2})₁₂ Nanoparticles.** R. Uda¹, K. Koike¹, N. Inaba¹, H. Kato¹, M. Itakura², M. Nakano³, S. Okubo⁴ and H. Ohta⁴
1. Graduate school of science and engineering, Yamagata University, Yonezawa, Japan; 2. Interdisciplinary Graduate School of Engineering Sciences, Kyushu University, Kasuga, Japan; 3. Graduate School of Engineering, Nagasaki University, Nagasaki, Japan; 4. Molecular Photoscience Research Center, Kobe University, Kobe, Japan
[View Digest Text](#)
- WPB-10. Withdrawn**
- WPB-11. Improvement of magnetic property for melt spun CeCo₅ ribbons due to Fe and C-doping.** H.W. Chang¹, C. Chang¹, Y. Wong¹, W.C. Chang¹ and C. Shaw² *1. National Chung Cheng University, Chia-Yi, Taiwan; 2. Superrite Electronics Co. Ltd., Taipei, Taiwan*
[View Digest Text](#)
- WPB-12. Enhanced magnetic properties of anisotropic SmCo₅/Fe-Co composites prepared using ultrasound-assisted electroless plating.** G. Lee¹, J. Ahn¹ and J. Kim¹
1. Department of Materials Science and Chemical Engineering, Hanyang University, Ansan, The Republic of Korea
[View Digest Text](#)
- WPB-13. Effect of isothermal aging process on the microstructure of grain boundary regions in Sm(Co, Fe, Cu, Zr)₂ magnets.** C. Dong¹, L. Liu¹, B. Zhou¹, Y. Sun¹, Y. Ding¹ and A. Yan¹ *1. CISRI & NIMTE Joint Innovation Center for Rare Earth Permanent Magnets, Ningbo Institute of Materials Technology and Engineering, Ningbo, China*
[View Digest Text](#)

Session WPC
HARD MAGNETIC MATERIALS VII
(Poster Session)

Yukiko Takahashi, Co-Chair
 NIMS, Tsukuba, Japan
 Xin Tang, Co-Chair
 NIMS, Tsukuba, Japan

- WPC-01. High Coercive Force $\text{Sm}_2\text{Fe}_{17}\text{N}_3$ Magnetic Materials by Phosphate Surface Modification.** *S. Tada¹, S. Yamanaka¹, K. Iwai¹ and M. Abe¹* *I. Nichia Corporation, Anan-shi, Japan*
[View Digest Text](#)
- WPC-02. Study of recycle process of $\text{Sm}_2\text{Fe}_{17}\text{N}_3$ bonded magnet.** *M. Yamamoto¹, T. Sasaki¹, K. Kawamura¹ and T. Yamashita¹* *I. Nichia Corporation, Anan-shi, Japan*
[View Digest Text](#)
- WPC-03. High saturation magnetization and high coercivity of Co substituted orthoferrite.** *A. Sawamoto¹ and X. Liu¹* *I. Shinshu University, Nagano, Japan*
[View Digest Text](#)
- WPC-04. Switching Field Distributions and Magnetocrystalline Anisotropy Fields in Zn-Ti and Co-Ti Equally Co-Substituted BaM Ferrites.** *A. Hoesz¹, A. Chevalier¹ and J. Mattei¹* *I. Université de Bretagne Occidentale, Brest, France*
[View Digest Text](#)
- WPC-05. Generation probability of point defects considering microscopic elastic scattering cross-sections in rare-earth permanent magnets via first-principles calculations.** *F. Akagi¹, R. Suzuki¹ and T. Yayama¹* *I. Kogakuin University, Tokyo, Japan*
[View Digest Text](#)
- WPC-06. Reduction effect of coercivity of electroplated Fe-Pt film magnets by chloride ion in plating baths.** *D. Fukushima¹, R. Narabayashi¹, A. Yamashita¹, T. Yanai¹, M. Nakano¹ and H. Fukunaga¹* *I. Graduate school of Engineering, Nagasaki University, Nagasaki, Japan*
[View Digest Text](#)
- WPC-07. Synthesis of Hexaferrite-Based $\text{SrFe}_{12}\text{O}_{19}/\text{FeCo}$ Nanocomposites.** *Y. Okawa¹, S. Okada¹ and S. Yamamuro¹* *I. Graduate School of Science and Engineering, Ehime University, Matuyama, Japan*
[View Digest Text](#)
- WPC-08. Effect of low-temperature annealing on hard magnetic properties of electroplated Fe-Pt films.** *R. Narabayashi¹, D. Fukushima¹, A. Yamashita¹, T. Yanai¹, M. Nakano¹ and H. Fukunaga¹* *I. Graduate School of Engineering, Nagasaki University, Nagasaki, Japan*
[View Digest Text](#)

- WPC-09. Effect of Cu addition on the crystal structure and magnetic properties for Mn-Ga thin films.** *Y. Miura*¹, *M. Doi*¹ and *T. Shima*¹ *I. Tohoku Gakuin University, Sendai, Japan*
[View Digest Text](#)
- WPC-10. Demagnetization of Nd-Fe-B Sintered and Ferrite Magnets Derived from Magnetic Measurements.** *Y. Matsuura*¹ *I. Research Institute for Applied Sciences, Kyoto, Japan*
[View Digest Text](#)
- WPC-11. Magnetic properties of Co-Zr-Si-B melt-spun ribbons.** *M. Tanaka*¹ and *T. Saito*¹ *I. Chiba Institute of Technology, Narashino, Japan*
[View Digest Text](#)
- WPC-12. Formation of bct structure and high magnetic anisotropy in Fe-Co films with added V and C elements.** *T. Hasegawa*¹ and *T. Nishikawa*¹ *I. Department of Materials Science, Akita University, Akita, Japan*
[View Digest Text](#)
- WPC-13. Microstructural and magnetic properties of low-energy ball milled LTP-MnBi powders via melt-spinning and gas-atomization.** *M. Kang*¹ and *J. Kim*¹ *I. Department of Materials Science and Chemical Engineering, Hanyang University, Ansan, The Republic of Korea*
[View Digest Text](#)
- WPC-14. Effect of additive elements on crystal structure and magnetic properties for FeMnGa thin films.** *T. Yokoe*¹, *M. Doi*¹ and *T. Shima*¹ *I. Tohoku Gakuin University, Sendai-shi, Japan*
[View Digest Text](#)

ORAL SESSIONS

Session XOA

THIN FILMS AND SURFACE EFFECTS I

Sonka Reimers, Chair

Johannes Gutenberg University Mainz, Mainz, Germany

- XOA-01. Tailored Metamagnetic Behavior under Spatial Confinement. (Invited)** *J.A. Arregi*¹, *L. Motyčková*², *O. Gomony*³ and *V. Uhlir*^{1,2} *I. CEITEC BUT, Brno University of Technology, Brno, Czechia; 2. Institute of Physical Engineering, Brno University of Technology, Brno, Czechia; 3. Johannes Gutenberg University, Mainz, Germany*
[View Digest Text](#)
- XOA-02. Odd spin frustration in ultrathin Cr(001) films studied by spin-polarized scanning tunneling microscopy.** *T. Kawagoe*¹ and *S. Suga*² *I. Osaka Kyoiku University, Kashiwara, Japan; 2. Osaka University, Ibaraki, Japan*
[View Digest Text](#)

- XOA-03. Direct observation of spin polarization in epitaxial Fe₃O₄(001)/MgO thin films grown by magnetron sputtering.** Z. Zhang¹, X. Lu¹, Y. Yan¹, J. Lu¹, Z. Li¹, Q. Liu¹, F. Zhu², J. Cao², Y. Wang², Z. Huang⁴, Y. Zhai⁴, Y. Li¹, X. Ruan¹, L. He¹, J. Wu³, J. Du¹, R. Zhang¹ and Y. Xu^{1,3}
1. Nanjing University, Nanjing, China; 2. Shanghai Synchrotron Radiation Facility, Shanghai, China; 3. York-Nanjing International Joint Center in Spintronics, York, United Kingdom; 4. Department of Physics, Southeast University, Nanjing, China
[View Digest Text](#)
- XOA-04. Influence of Free Layer Surface Roughness on Tunnel Magnetoresistance in 300 nm CMOS-compatible MTJ Stacks.** C.A. Durner^{1,2}, M. Lederer¹, T. Gurieva¹, J. Hertel¹, M. Hindenberg¹, L. Gerlich¹, M. Wagner-Reetz¹ and S. Parkin²
1. Center Nanoelectronic Technologies (CNT), Fraunhofer IPMS, Dresden, Germany; 2. Nanosystems from Ions, Spins and Electrons (NISE), Max Planck Institute of Microstructure Physics, Halle (Saale), Germany
[View Digest Text](#)
- XOA-05. Ferromagnetic Springs in Exchange Biased Trilayers.** S. Akhundzada¹, A. Vereijken¹, L. Paetzold¹, V. Vanakalapu¹, C. Janzen¹, T. Saerbeck² and A. Ehresmann¹
1. Institute of Physics and Center for Interdisciplinary Nanostructure Science and Technology (CINSA-T), University of Kassel, Kassel, Germany; 2. Institut Laue-Langevin, Grenoble, France
[View Digest Text](#)
- XOA-06. Understanding magnetocrystalline anisotropy of distorted Fe/MgO(001) interface based on orbital and quadrupole moments.** Y. Miura¹ and J. Okabayashi²
1. Research Center for Magnetic and Spintronic Materials, National Institute for Materials Science (NIMS), Tsukuba, Japan; 2. Research Center for Spectrochemistry, The University of Tokyo, Tokyo, Japan
[View Digest Text](#)
- XOA-07. Role of Cu in Buffer-free SmCo_{5-x}Cu_x Hard Magnetic Thin Films.** G. Gkouzia¹, D. Günzing², T. Weßels^{3,2}, A. Kovács³, A. N/Diaye⁴, M. Major¹, J. Palakkal¹, R. Xie¹, H. Zhang¹, H. Wende², K. Ollefs² and L. Alff¹
1. Materials Science, Technische Universität Darmstadt, Darmstadt, Germany; 2. Physics, Faculty of Physics and Center for Nanointegration (CENIDE), Duisburg, Germany; 3. Ernst Ruska-Centre for Microscopy and Spectroscopy with Electrons and Peter Grünberg Institute, Forschungszentrum Jülich, Jülich, Germany; 4. Lawrence Berkeley National Laboratory, Berkeley, CA, United States
[View Digest Text](#)
- XOA-08. Investigating magnetocrystalline anisotropy in the system Au/Co-Staircase/Au(788) by using XMCD.** R.J. Rosa¹, R.L. Souza¹, G. Gomes^{2,3}, R. Paniago³ and M. Martins¹
1. Centro de Desenvolvimento da Tecnologia Nuclear - CDTN, Belo Horizonte, Brazil; 2. CCET - UNIMONTES, Montes Claros, Brazil; 3. Universidade Federal de Minas Gerais - UFMG, Belo Horizonte, Brazil
[View Digest Text](#)

- XOA-09. Controlling pi-anisotropy with organic multilayers.** T. Moorsom¹, S. Ozdemir¹, M. Rogers¹, M. McCauley², D. MacLaren² and O. Cespedes¹ 1. University of Leeds, Leeds, United Kingdom; 2. University of Glasgow, Leeds, United Kingdom
[View Digest Text](#)
- XOA-10. Spinterface formation of sexithiophene (6T) on ferromagnetic surfaces.** M. Alotaibi³, P.D. Bentley^{1,2}, J. Bradley³, T. Bird³, O. Fossberg³, G. Bertolini³, S. Tear³, I. Bergenti⁴ and A. Pratt³ 1. National Institute for Quantum Science and Technology, Takasaki, Japan; 2. National Institute for Materials Science (NIMS), Tsukuba, Japan; 3. School of Physics, Engineering and Technology, University of York, York, United Kingdom; 4. Institute of Nanostructured Materials, CNR, Bologna, Bologna, Italy
[View Digest Text](#)
- XOA-11. Bending Strain Tailored Exchange Bias, Anisotropic Magnetoresistance and Planar Hall Resistance of Flexible Co/MnN Epitaxial Bilayers.** Z. Chen¹ and W. Mi¹
1. Department of Applied Physics, Tianjin University, Tianjin, China
[View Digest Text](#)

ORAL SESSIONS

Session XOB

**THIN FILMS, SURFACE EFFECTS AND
MULTI-LAYERED FILMS I**

Andy Thomas, Chair
TU Dresden, IFMP, Dresden, Germany

- XOB-01. Defect-driven antiferromagnetic domain walls in CuMnAs films. (Invited)** S. Reimers^{1,2}, D. Kriegner^{3,4}, O. Gomonay¹, D. Carbone⁵, F. Krizek⁴, V. Novak⁴, R. Campion², F. Maccherozzi⁶, A. Björling⁵, O. Amin², L. Barton², S. Poole², K. Omari², J. Michalicka⁷, O. Man⁷, J. Sinova¹, T. Jungwirth^{4,2}, P. Wadley², S. Dhesi⁶ and K. Edmonds²
1. Institut für Physik, Johannes-Gutenberg-Universität Mainz, Mainz, Germany; 2. School of Physics and Astronomy, University of Nottingham, Nottingham, United Kingdom; 3. TU Dresden, Dresden, Germany; 4. Czech Academy of Sciences, Prague, Czechia; 5. MAX IV Laboratory, Lund, Sweden; 6. Diamond Light Source Ltd, Chilton, United Kingdom; 7. Central European Institute of Technology, Brno, Czechia
[View Digest Text](#)
- XOB-02. Field-free superconducting diode effect in noncentrosymmetric superconductor/ferromagnet multilayers. (Invited)** T. Ono¹ 1. Kyoto University, Uji, Japan
[View Digest Text](#)

XOB-03. Modulation of anomalous Nernst effects in Fe₄N and Mn₄N films on SrTiO₃ substrates. K. Ito¹, H. Sharma², M. Mizuguchi³ and K. Takanashi^{1,4} 1. *Institute for Materials Research, Tohoku University, Sendai, Japan*; 2. *Imec, Leuven, Belgium*; 3. *Department of Materials Process Engineering, Nagoya University, Nagoya, Japan*; 4. *Advanced Science Research Center, Japan Atomic Energy Agency, Tokai, Japan*
[View Digest Text](#)

XOB-04. Anomalous Magnetism in Epitaxial Mn₂Ru_xGa Thin Films. G. Atcheson¹, J. O'Brien¹, A. Naden², K.E. Siewierska¹, J. Coey¹, K. Rode¹ and P.S. Stamenov¹ 1. *CRANN/School of Physics, Trinity College Dublin, Dublin, Ireland*; 2. *School of Chemistry, University of St Andrews, St Andrews, United Kingdom*
[View Digest Text](#)

XOB-05. Magnetic layer thickness influence on the anisotropy of magnetoelastic properties in Co₂Fe_{0.4}Mn_{0.6}Si Heusler alloys thin films. A. Nabialek¹, O. Chumak¹, T. Yamamoto², T. Seki², K. Takanashi^{2,3}, L.T. Baczewski¹ and H. Szymczak¹ 1. *Institute of Physics, Polish Academy of Sciences, Warsaw, Poland*; 2. *Institute for Materials Research, Tohoku University, Sendai, Japan*; 3. *Advanced Science Research Center, Japan Atomic Energy Agency, Tokai, Japan*
[View Digest Text](#)

XOB-06. Giant perpendicular magnetic anisotropy in Co-based ferromagnet/antiferromagnetic δ-Mn bilayers. R. Han¹, X. Zhao¹, L. Liu¹, H. Sun¹, H. Qin¹, D. Pan¹ and J. Zhao¹ 1. *State Key Laboratory of Superlattices and Microstructures, Institute of Semiconductor, Chinese Academy of Sciences, Beijing, China*
[View Digest Text](#)

XOB-07. Strain effects on magnetic compensation and spin reorientation transition of Co/Gd synthetic ferrimagnets. G. Masciocchi^{3,1}, P. Li², T.J. Kools², A. Petrillo², B. Koopmans², R. Lavrijsen², A. Kehlberger¹ and M. Kläui³ 1. *Sensitec GmbH, Mainz, Germany*; 2. *Applied Physics, Eindhoven University of Technology, Eindhoven, Netherlands*; 3. *Physics, Johannes Gutenberg University, Mainz, Germany*
[View Digest Text](#)

XOB-08. Structural and magnetic properties of CoFe/Sn-doped Ge/Co₂FeSi for vertical spin-valve devices on Si. S. Kusumoto¹, M. Yamada^{2,3}, A. Yamada¹, Y. Wagatsuma⁴, K. Sawano⁴ and K. Hamaya^{2,5} 1. *Graduate School of Engineering Science, Osaka University, Toyonaka, Japan*; 2. *Center for Spintronics Research Network, Graduate School of Engineering Science, Osaka University, Toyonaka, Japan*; 3. *PRESTO, Japan Science and Technology Agency, Kawaguchi, Japan*; 4. *Advanced Research Laboratories, Tokyo City University, Setagaya, Japan*; 5. *Spintronics Research Network Division, Institute for Open and Transdisciplinary Research Initiatives, Osaka University, Suita, Japan*
[View Digest Text](#)

- XOB-09. Enhanced soft magnetic properties in N-doped amorphous FeCo thin film.** R. Das¹, G. Wei¹, D. Lordan¹, R. Sai¹, M. Hayes¹, B. Clarke², D. Hurley² and P. McCloskey¹
1. MNS, Tyndall National Institute, Cork, Ireland; 2. TEL Magnetic Solutions Ltd (TELEMS), Dublin, Ireland
[View Digest Text](#)
- XOB-10. Field angle-dependent bubble lattice formation in Re/Co/Pt multilayers.** S.K. Jena¹, J. Kisielewski², R. Gieniusz², U. Guzowska², A. Fakhredine¹, C. Autieri¹, A. Lynnyk¹, A. Pietruczik¹, A. Maziewski² and A. Wawro¹ 1. Institute of Physics, Polish Academy of Sciences, Warsaw, Poland; 2. Faculty of Physics, University of Bialystok, Bialystok, Poland
[View Digest Text](#)

ORAL SESSIONS

Session XOC

INTERACTING MAGNETIC NANOPARTICLES

Rhodri Mansell, Chair
Aalto University, Espoo, Finland

- XOC-01. Flexible thermoelectrics based on 3D interconnected magnetic nanowire networks. (Invited)** T. da Câmara Santa Clara Gomes¹, N. Machal¹, F. Abreu Araujo¹ and L. Piraux¹
1. UCLouvain, Louvain-la-Neuve, Belgium
[View Digest Text](#)
- XOC-02. Magnetic study of Cobalt three dimensional nanonetworks: First Order Reversal Curves, hysteresis loops and first magnetization curves.** A. Ruiz-Clavijo¹, O. Caballero-Calero¹, D. Navas², C. Martín-Rubio³, R. Sanz González³ and M. Martín-González¹ 1. Instituto de Micro y Nanotecnología, Tres Cantos, Spain; 2. Instituto de Ciencia de Materiales de Madrid, Madrid, Spain; 3. Payloads and Space Science Department, National Institute for Aerospace Technology, Torrejon de Ardoz, Spain
[View Digest Text](#)
- XOC-03. Withdrawn**
- XOC-04. Ultrasmall Fe₃O₄@Au Composite Nanoparticles with Different Sizes of Fe₃O₄ for Magnetic Hyperthermia.** L. Tonthat¹, T. Ogawa¹ and S. Yabukami¹ 1. Tohoku University, Sendai, Japan
[View Digest Text](#)
- XOC-05. Electrodeposited CoPt multilayered-nanowire for 3D memory device.** M. Hasan¹, T. Huang², M. Saito¹, Y. Takamura², D. Oshima³, T. Kato^{3,4} and T. Homma^{1,5}
1. Research Organization for Nano and Life Innovation, Waseda University, Shinjuku, Japan; 2. Dept. of Electrical and Electronic Eng., Tokyo Institute of Technology, Meguro, Japan; 3. Dept. of Electronics, Nagoya University, Chikusa, Japan; 4. Institute of Materials and Systems for Sustainability, Nagoya University, Chikusa, Japan; 5. Dept. of Applied Chemistry, Waseda University, Shinjuku, Japan
[View Digest Text](#)

- XOC-06. Tunable Magnon-Magnon Coupling Mediated by Static and Dynamic Dipolar Interaction in Ni₈₀Fe₂₀ Nanocross Array.** P.K. Pal¹ and A. Barman¹ *1. Condensed Matter Physics and Material Sciences, S N Bose National Centre For Basic Sciences, Kolkata, India*
[View Digest Text](#)
- XOC-07. Magnetostatic Interactions in Fe/Au Barcode Nanowire Arrays.** A. Samardak¹, Y. Jeon², A. Kozlov¹, A. Ognev¹, E. Jeong³, G. Kim³, M. Ko³, A.S. Samardak¹ and Y. Kim³
1. Institute of High Technologies and Advanced Materials, Far Eastern Federal University, Vladivostok, Russian Federation; 2. Center for Hydrogen Fuel Cell Research, Korea Institute of Science and Technology, Seoul, The Republic of Korea; 3. Department of Materials Science and Engineering, Korea University, Seoul, The Republic of Korea
[View Digest Text](#)
- XOC-08. Magnetization Dynamics of Interacting Iron Oxide Nanoparticles in Ionic Solutions.** W. Muliawan¹, Y. Chen¹ and Y. Kitamoto¹ *1. Materials Science and Engineering, Tokyo Institute of Technology, Yokohama, Japan*
[View Digest Text](#)
- XOC-09. Dynamic properties of magnetic nanoparticles in highly ordered arrangements: size- & spacing-dependent properties.** N. Neugebauer¹, Y. Wang², M. Elm¹, D. Hofmann¹, X. Ye², C. Heiliger¹ and P. Klar¹ *1. Justus-Liebig University, Giessen, Germany; 2. Indiana University, Bloomington, IN, United States*
[View Digest Text](#)
- XOC-10. Magnetic interaction in superparamagnetic Co-Pt nanoparticles synthesized in *Pyrococcus furiosus* virus-like particle (PfV) crystal.** K. Tagata¹, D. Kanda¹, N. Kobayashi¹, A. Higashiura², S. Ichikawa³, N. Kishida¹, R. Nakatani^{1,5}, A. Nakagawa⁴ and Y. Shiratsuchi^{1,5}
1. Graduate School of Engineering, Osaka University, Suita, Japan; 2. Graduate School of Biomedical and Health Science, Hiroshima University, Hiroshima, Japan; 3. Research center for Ultra-High Voltage Electron Microscopy, Osaka University, Suita, Japan; 4. Institute for protein Research, Osaka University, Suita, Japan; 5. Institute for Open and Transdisciplinary Research Initiatives, Osaka University, Suita, Japan
[View Digest Text](#)
- XOC-11. On the metamagnetic phase transition in thick B2-like FeRh nanoclusters assemblies.** G. Herrera¹, D. Le Roy¹, A. Tamion¹, L. Bardotti¹, F. Tournus¹, S. Gonzales², M. Bugnet³, P. Schoeffmann⁴, E. Otero⁴, P. Ohresser⁴, F. Wilhelm⁵, A. Rogalev⁵, I. Canero-Infante² and V. Dupuis¹
1. Institut Lumiere Matiere, Villeurbanne, France; 2. Institut des Nanotechnologies de Lyon, Villeurbanne, France; 3. MATEIS, Villeurbanne, France; 4. Synchrotron SOLEIL, Saint-Aubin, France; 5. European Synchrotron Radiation Facility, Grenoble, France
[View Digest Text](#)

Session XOD

**MAGNETIC NANOPARTICLES: THEORY,
SYNTHESIS AND CHARACTERIZATION**

Yen-Lin Huang, Chair

National Yang Ming Chiao Tung University, Hsinchu city, Taiwan

- XOD-01. Unveiling new insights into bi-magnetic antiferromagnetic/ferrimagnetic Core/Shell nanoparticles: a multicharacterization approach. (Invited) M. Estrader², A. Gómez Roca^{1,3}, A. López-Ortega⁴, R. Ichikawa⁵, I. Peral⁶, X. Turrillas⁷, D. del-Pozo-Bueno⁸, M. Varela⁹, F. Peiró^{8,3}, S. Estradé^{8,3} and J. Nogués^{1,10}** *1. Catalan Institute of Nanoscience and Nanotechnology ICN2, Bellaterra, Spain; 2. Departament de Química Inorgànica i Orgànica, Universitat de Barcelona, Barcelona, Spain; 3. Institute of Nanoscience and Nanotechnology of the University of Barcelona (IN2UB), Barcelona, Spain; 4. Departamento de Ciencias and Institute for Advanced Materials and Mathematics INAMAT, Universidad Pública de Navarra, Pamplona, Spain; 5. Nuclear and Energy Research Institute (IPEN/CNEN-SP), Sao Paulo, Brazil; 6. Department of Physics and Materials Science, University of Luxembourg, Luxembourg, Luxembourg; 7. Institut de Ciència de Materials de Barcelona-CSIC, CSIC, Bellaterra, Spain; 8. LENS-MIND, Departament Enginyeries Electrònica i Biomèdica, Universitat de Barcelona, Barcelona, Spain; 9. Departamento de Física de Materiales e Instituto Pluridisciplinar, Universidad Complutense de Madrid, Madrid, Spain; 10. ICREA, Barcelona, Spain*
[View Digest Text](#)
- XOD-02. Nanostructure-Induced L1₀-Ordered CoPt Ferromagnetic Nanowires on Si/SiO₂ Substrates. R. Toyama^{1,6}, S. Kawachi^{2,3}, J. Yamaura^{3,4}, T. Fujita⁵, Y. Murakami⁴, H. Hosono³ and Y. Majima^{1,3}** *1. Laboratory for Materials and Structures, Tokyo Institute of Technology, Yokohama, Japan; 2. Graduate School of Science, University of Hyogo, Kamigori, Japan; 3. Materials Research Center for Element Strategy, Tokyo Institute of Technology, Yokohama, Japan; 4. Institute of Materials Structure Science, High Energy Accelerator Research Organization, Tsukuba, Japan; 5. School of Environmental Science and Engineering, Kochi University of Technology, Kami, Japan; 6. Research Center for Magnetic and Spintronic Materials, National Institute for Materials Science (NIMS), Tsukuba, Japan*
[View Digest Text](#)
- XOD-03. Microfabrication of High Aspect Ratio Complex Components based on Soft Ferromagnetic FeCo(V) Alloy by combining Lithography and Electrodeposition. E.M. Palmero¹, M.R. Osorio¹, A. Valera¹, M. Acebrón¹, A. Bollero¹ and D. Granados¹** *1. IMDEA Nanociencia, Madrid, Spain*
[View Digest Text](#)
- XOD-04. Withdrawn**

- XOD-05. Magnetic static structure and dynamic excitations of TbCu₂ nanoparticles.** *E.M. Jefremovas^{2,1}, M. de la Fuente Rodríguez², D. Alba Venero³, C. Echevarría-Bonet⁴, P. Bender², B. Fåk⁵, J.Á. Blanco Rodríguez⁴ and L. Fernández Barquín²* 1. Institut for Physics, Johannes Gutenberg University, Mainz, Germany; 2. CITIMAC, Universidad de Cantabria, Santander, Spain; 3. RAL-ISIS, Didcot, United Kingdom; 4. Física Aplicada, Universidad de Oviedo, Oviedo, Spain; 5. Institut Laue Langevin, Grenoble, France
[View Digest Text](#)
- XOD-06. Permeability of clustered soft magnetic narrow strips controlled by a surface normal magnetic field.** *T. Nakai¹* 1. Industrial Technology Institute, Miyagi Prefectural Government, Sendai, Japan
[View Digest Text](#)
- XOD-07. Withdrawn**
- XOD-08. A Machine Learning Based Analysis Method of AC Magnetization Spectra for Estimating Cluster Distribution of Magnetic Nanoparticles.** *Y. Chen¹, K. Slavakis² and Y. Kitamoto¹* 1. Department of Materials Science and Engineering, Tokyo Institute of Technology, Yokohama, Japan; 2. Department of Information and Communications Engineering, Tokyo Institute of Technology, Yokohama, Japan
[View Digest Text](#)
- XOD-09. Soft Magnetic Properties of Agglomerates of Fe Nanoparticles Fabricated by Cold Spray Technique.** *E. Watanabe^{1,2}, Y. Kurumiya³, T. Ogawa³, H. Kura¹, H. Saito², Y. Ichikawa² and K. Ogawa²* 1. DENSO CORPORATION, Kariya, Japan; 2. Fracture and Reliability Research Institute, Tohoku University, Sendai, Japan; 3. Department of Electronic Engineering, Tohoku University, Sendai, Japan
[View Digest Text](#)
- XOD-10. Understanding the Effects of Material and Shape Anisotropy in Three-Dimensional Nanopillars on Two-Dimensional Islands.** *C.H. Leow¹ and V. Ng¹* 1. Information Storage Materials Laboratory, Electrical and Computer Engineering (ECE), National University of Singapore, Singapore
[View Digest Text](#)
- XOD-11. Evolution of magnetic interactions from non-magnetic amorphous NiCu@SiO₂ composite.** *D. Patra¹ and V. Srinivas¹* 1. Department of Physics, Indian Institute of Technology, Chennai, India
[View Digest Text](#)
- XOD-12. Nonreciprocal Surface Acoustic Wave Propagation Enabled by Out-of-Plane Magnetization.** *L. Liao¹, J. Puebla², J. Kim², Y. Hwang¹ and Y. Otani^{1,2}* 1. Institute for Solid State Physics, The University of Tokyo, Kashiwa, Japan; 2. CEMS, RIKEN, Wako, Japan
[View Digest Text](#)

- XOD-13. Fabrication of Fe-Fe₃O₄ co-aggregated nanoparticles assembly and its AC magnetic property.** *S. Yanagita*^{1,2}, *Y. Yamaguchi*¹, *N. Kosaka*¹, *Y. Sotome*¹, *C.E. McNamee*³, *S. Yamamoto*², *S. Saito*¹ and *T. Ogawa*¹ *1. Department Electronic Engineering, Tohoku University, Sendai, Japan; 2. Advanced Research Department, Sankei Giken Kogyo Co., Ltd., Iseaki, Japan; 3. Department of Chemistry and Materials, Shinshu University, Ueda, Japan*
[View Digest Text](#)

- XOD-14. Tailoring the Magnetization Processes of Chemically Modulated Cylindrical Nanowires.** *L. Perez*^{1,2}, *C. Fernandez Gonzalez*^{2,3}, *A. Berja*⁴, *A. Mascaraque*¹, *L. Aballe*⁵, *M. Foerster*⁵, *R. Sanz González*⁶ and *S. Ruiz Gómez*³ *1. Fisica de Materiales, Universidad Complutense de Madrid, Madrid, Spain; 2. IMDEA Nanociencia, Madrid, Spain; 3. Max Planck Institute for Chemical Physics of Solids, Dresden, Germany; 4. Instituto de Cerámica y Vidrio - CSIC, Madrid, Spain; 5. Alba Synchrotron, Cerdanyola del Valles, Spain; 6. Instituto Nacional de Técnica Aeroespacial, Torrejon de Ardoz, Spain*
[View Digest Text](#)

POSTER SESSION

Session XPB
THIN FILMS, SURFACE EFFECTS AND
MULTI-LAYERED FILMS II
(Poster Session)

Luana Caron, Chair
Bielefeld University, Bielefeld, Germany

- XPB-01. Ion Irradiation Effects on Crystal Structure and Magnetic Properties of Iron-Nickel Binary Alloys.** *Y. Kamada*¹, *T. Oyake*¹, *T. Murakami*¹, *S. Kobayashi*¹, *K. Shimizu*¹ and *H. Watanabe*² *1. Faculty of Science and Engineering, Iwate University, Morioka, Japan; 2. Research Institute Applied Mechanics, Kyusyu University, Kasuga, Japan*
[View Digest Text](#)
- XPB-02. Improving magnetic and dielectric performance of Co-BaMgF₄ nanocomposite films by thermal annealing treatment.** *N. Yokohama*¹, *H. Kijima-Aoki*^{1,2} and *H. Masumoto*¹ *1. Frontier Research Institute for Interdisciplinary Sciences, Tohoku University, Sendai, Japan; 2. Department of Electrical Engineering, Tohoku University, Sendai, Japan*
[View Digest Text](#)
- XPB-03. Interfacial Dzyaloshinskii-Moriya interaction in epitaxial Pd/Co/Ta films.** *A. Kozlov*¹, *M.A. Kuznetsova*¹, *A.F. Shishelov*¹ and *A. Samardak*¹ *1. Institute of High Technologies and Advanced Materials, Far Eastern Federal University, Vladivostok, Russian Federation*
[View Digest Text](#)

- XPB-04. Compositionally magnetostrictive response of perpendicularly magnetized Ta/CoFe(B)/MgO films.** *S. Ahn*¹. *POSTECH, Pohang, The Republic of Korea*
[View Digest Text](#)
- XPB-05. Superconducting transition temperature and proximity coupling in Nb/Co multilayers.** *T. Kikuta*¹, *S. Komori*¹, *K. Imura*¹ and *T. Taniyama*¹. *Department of Physics, Nagoya University, Nagoya, Japan*
[View Digest Text](#)
- XPB-06. Magnetic hardness of graded interface exchange spring L1₀-FePt films with Co nanoinclusions.** *C. Paleo*¹, *F. Wilhelm*², *A. Dias*³, *N. Dempsey*³, *V. Dupuis*¹ and *D. Le Roy*¹. *1. Institut Lumière Matière, Villeurbanne, France; 2. The European Synchrotron Radiation Facility (ESRF), Grenoble, France; 3. Institut Néel CNRS, Grenoble, France*
[View Digest Text](#)
- XPB-07. Perpendicular magnetic anisotropy based spintronic devices in Pt/Co and Pt/Co/X/Pt stacks under different hard and flexible substrates.** *S. Eimer*¹, *H. Cheng*^{1,2}, *P. Vallobra*¹, *Z. Boyu*² and *W. Zhao*^{1,2}. *1. Hefei Innovation Research Institute, Beihang University, Hefei, China; 2. School of Integrated Circuit Science and Engineering, 2MIIT Key Laboratory of Spintronics, Beijing, China*
[View Digest Text](#)
- XPB-08. Effects of Hydrogen Absorption on Magneto-Transport Properties of CoPd Multilayers.** *Y. Lai*¹, *B. Huang*¹, *C. Chen*¹, *Y. Tang*¹ and *J. Hong*². *1. Department of Physics, National Central University, Taoyuan City, Taiwan; 2. Department of Physics, Tamkang University, New Taipei City, Taiwan*
[View Digest Text](#)
- XPB-09. Withdrawn**
- XPB-10. Antiferromagnetically exchange coupled CoFe/MgO/CoFe stacks.** *S. Ahn*¹. *POSTECH, Pohang, The Republic of Korea*
[View Digest Text](#)
- XPB-11. Iron and gold thin films: first-principles study.** *J.N. Rychly-Gruszecka*¹, *H. Glowinski*¹, *J. Snarski-Adamski*¹, *P. Kuswik*¹ and *M. Werwinski*¹. *Institute of Molecular Physics, Polish Academy of Science, Poznan, Poland*
[View Digest Text](#)
- XPB-12. Fe-Co films electroplated from glycine-based plating baths.** *R. Hosohata*¹, *Y. Matsumoto*¹, *A. Yamashita*¹, *T. Yanai*¹, *M. Nakano*¹ and *H. Fukunaga*¹. *Graduate School of Engineering, Nagasaki University, 1-14 Bunkyo, Japan*
[View Digest Text](#)

Session XPC
MAGNETIC NANOPARTICLES AND NANOWIRES
(Poster Session)

Yuko Ichiyanagi, Chair
 Yokohama National University, Yokohama, Japan

- XPC-01. Magnetic Properties and XAFS Analysis of PEG-coated Gd-doped ZnO Magnetic Nanoparticles.** *K. Nii¹, K. Ohara¹, K. Nakazawa¹, T. Sakamoto¹, T. Moriwaki¹, Y. Fujita¹, H. Amano¹, I. Kawaguchi¹, S. Kobayashi¹, T. Shimohama¹ and Y. Ichiyanagi¹* *1. Yokohama National University, Yokohama, Japan*
[View Digest Text](#)
- XPC-02. Design and optimization of magnetic fluid sealing with pole teeth on the shaft.** *Z. Li¹ and D. Li¹* *1. State Key Laboratory of Tribology, Tsinghua University, Beijing, China*
[View Digest Text](#)
- XPC-03. Structure and Magnetic Properties of Mn–Pt and Mn–Pt–B Melt-Spun Ribbons.** *M. Mitsue¹, I. Sasaki¹, Y. Zhang¹, T. Tokunaga¹ and T. Ogawa²* *1. Kyushu Institute of Technology, Kitakyushu, Japan; 2. Fukuoka Industrial Technology Center, Kitakyushu, Japan*
[View Digest Text](#)
- XPC-04. Facile Synthesis of Carbon-Encapsulated Fe/Fe₃C Nanocomposite Particles and Their Magnetic Behavior.** *P. Chuang¹, B. Chen¹, L. Huang¹, Z. Huang¹, Y. Chen¹, B. Xie¹, A. Spivakov¹ and C. Lin¹* *1. Department of Applied Physics, National Pingtung University, Pingtung, Taiwan*
[View Digest Text](#)
- XPC-05. Magnetic nanopillars in self-organized magneto-dielectric nanocomposite thin films.** *H. Kijima-Aoki^{1,2}, H. Masumoto² and Y. Endo^{1,3}* *1. Department of Electrical Engineering, Tohoku University, Sendai, Japan; 2. Frontier Research Institute for Interdisciplinary Sciences, Tohoku University, Sendai, Japan; 3. Center for Spintronics Research Network, Tohoku University, Sendai, Japan*
[View Digest Text](#)
- XPC-06. Evaluation of magnetization response of magnetic nanoparticles internalized into cultured adherent cells.** *M. Nishida¹, M. Futagawa¹, Y. Takemura² and S. Ota¹* *1. Shizuoka University, Hamamatsu, Japan; 2. Yokohama National University, Yokohama, Japan*
[View Digest Text](#)
- XPC-07. Electric Potential-Induced Localized Surface Plasmon Resonance of Fe₃O₄/Ag Composite Magnetic Nanoparticles.** *M. Riswan¹, N. Adrianto¹, I.M. Yahya¹, N.I. Istiqomah¹, A.M. Panre¹, J. Juharni¹, S. Wahyuni¹, M. Arifin¹, I. Santoso¹, D. Oshima², T. Kato² and E. Suharyadi¹* *1. Universitas Gadjah Mada, Yogyakarta, Indonesia; 2. Nagoya University, Nagoya, Japan*
[View Digest Text](#)

XPC-08. Magnetoresistance of CoFe Nanocoils. *K. Rogachev¹, A. Samardak¹, A. Kozlov¹, V. Kharitonov¹, Z. Namsaraev¹, M. Bazrov¹, M. Stebliy¹, E. Jeong², Y. Jeon², A. Ognev¹, A.S. Samardak¹ and Y. Kim³* 1. *Institute of High Technologies and Advanced Materials, Far Eastern Federal University, Vladivostok, Russian Federation;* 2. *Center for Hydrogen Fuel Cell Research, Korea Institute of Science and Technology, Seoul, The Republic of Korea;* 3. *Department of Materials Science and Engineering, Korea University, Seoul, The Democratic People's Republic of Korea*
[View Digest Text](#)

XPC-09. Compositional dependence of structure, magnetic and electrical conduction properties of Co_xPt_{1-x} alloy nanowires fabricated by electrodeposition into nanoporous templates. *N. Oguchi¹, M. Syunpei¹, S. Kasai², S. Sugimoto², M. Saito³, T. Homma³, T. Ono⁴, M. Shima¹ and K. Yamada¹* 1. *Gifu University, Gifu, Japan;* 2. *National Institute for Materials Science, Tsukuba, Japan;* 3. *Waseda University, Tokyo, Japan;* 4. *Kyoto University, Kyoto, Japan*
[View Digest Text](#)

XPC-10. Withdrawn

XPC-11. Characterization and Magnetic Properties for Room Temperature Synthesis of Ni-doped Fe₃O₄/ZnS Core-Shell Nanoparticles. *V. Arockia Doss¹, D. Shiu¹, K. Lai¹, Y. Lin² and L. Horng¹* 1. *PHYSICS, National Changhua University of Education, Changhua, Taiwan;* 2. *Chemistry, National Changhua University of Education, Changhua, Taiwan*
[View Digest Text](#)

XPC-12. Characterization of Néel relaxation time in multicore magnetic nanoparticles. *H. Goto¹, M. Futagawa², Y. Takemura³ and S. Ota²* 1. *Electrical and Electronic Engineering Course, Graduate School of Integrated Science and Technology, Shizuoka University, Hamamatu, Japan;* 2. *Electrical and Electronic Engineering, Shizuoka University, Hamamatu, Japan;* 3. *Electrical and Computer Engineering, Yokohama National University, Yokohama, Japan*
[View Digest Text](#)

POSTER SESSION

Session XPA
THIN FILMS AND SURFACE EFFECTS II
(Poster Session)

Lucas Caretta, Chair
Brown University, Providence, RI, United States

XPA-01. Suppression of the formation of soft magnetic phase in Sm(Fe_{0.8}Co_{0.2})₁₂-B thin films by introducing Sm seed layer. *S. Nakatsuka¹, Y. Mori¹, M. Doi¹ and T. Shima¹* 1. *Tohoku Gakuin University, Sendai, Japan*
[View Digest Text](#)

- XPA-02. Preparation of Mn-N-B Single-Crystal Thin Films with Perpendicular Magnetic Anisotropy.** *K. Imamura¹, Y. Nakamura¹, S. Noro¹, S. Isogami² and M. Ohtake¹*
1. Yokohama National University, Yokohama, Japan; 2. National Institute for Materials Science (NIMS), Tsukuba, Japan
[View Digest Text](#)
- XPA-03. Induced in-plane uniaxial magnetic anisotropy in Co thin films sputtered onto a single-crystal 128° Y-cut LiNbO₃ substrate.** *S. Shikano¹, S. Ono¹, A. Yamaguchi², M. Shima¹ and K. Yamada¹*
1. Gifu University, Gifu, Japan; 2. University of Hyogo, Hyogo, Japan
[View Digest Text](#)
- XPA-04. Withdrawn**
- XPA-05. Silicide formation at lower temperatures for cobalt and nickel on $\sqrt{3}\times\sqrt{3}$ -Ag/Si(111).** *C. Chang¹, Y. Chow¹, P. Jiang¹, T. Fu¹ and J. Tsay¹*
1. National Taiwan Normal University, Taipei, Taiwan
[View Digest Text](#)
- XPA-06. Synthesis and in-situ XPS study of U-Te thin films.** *E. Tereshina-Chitrova¹, M. Vališka², F. Huber³ and T. Gouder³*
1. Institute of Physics, Czech Academy of Sciences, Prague, Czechia; 2. Faculty of Mathematics and Physics, Charles University, Prague, Czechia; 3. European Commission, Joint Research Centre (JRC), Karlsruhe, Germany
[View Digest Text](#)
- XPA-07. Growth and structural characterizations of off-stoichiometric IrMn thin films for tunneling magnetoresistive structure.** *S. Tungasmita², K. Mopoung¹, F. Eriksson¹ and P. Persson¹*
1. Physics, Chemistry and Biology, Linköping University, Linköping, Sweden; 2. Physics, Chulalongkorn University, Bangkok, Thailand
[View Digest Text](#)
- XPA-08. Modeling the Dependence Hysteresis Characteristics of Thin Films Pd/Co/CoO on Cobalt Oxidation.** *L. Afremov¹, V. Kharitonov¹, I. Iliushin^{1,2} and P. Mushtuk^{2,1}*
1. Department of Theoretical Physics and Intelligent Technologies, Far Eastern Federal University, Vladivostok, Russian Federation; 2. Laboratory of Spin-Orbitronics, Institute of High Technologies and Advanced Materials, Far Eastern Federal University, Vladivostok, Russian Federation
[View Digest Text](#)
- XPA-09. Investigation of the Effect of the Oxidation Depth of Co/CoO Films on the Relative Constant of Interfacial Interaction.** *L. Brykin¹ and L. Afremov¹*
1. Institute of High-Tech Technologies and Advanced Materials, Far Eastern Federal University, Vladivostok, Russian Federation
[View Digest Text](#)

- XPA-10. Orbital hybridization induced out-of-plane anisotropy in High entropy alloy thin-films.** *M. Talluri*¹, H. Perumal², B. Paikaray¹, A. Haldar³, J. Sinha², P.P. Bhattacharjee¹ and C. Murapaka¹ *1. Materials science and metallurgical engineering, IIT Hyderabad, Hyderabad, India; 2. Department of Physics and Nanotechnology, SRM Institute of Science and Technology, Kattankulathur, India; 3. Department of Physics, IIT Hyderabad, Hyderabad, India*
[View Digest Text](#)
- XPA-11. Fe-Ni films electroplated from gel electrolyte.** *Y. Matsumoto*¹, R. Hosohata¹, Y. Yamaguchi¹, A. Yamashita¹, T. Yanai¹, M. Nakano¹ and H. Fukunaga¹ *1. Nagasaki University, Nagasaki, Japan*
[View Digest Text](#)
- XPA-12. Magnetic structural analysis of Pt₃Fe antiferromagnet by single crystal neutron diffraction.** *A. Nakano*¹, S. Kobayashi¹, Y. Hotta¹, S. Goto¹, T. Sakakura² and H. Kimura² *1. Iwate University, Morioka, Japan; 2. Tohoku University, Sendai, Japan*
[View Digest Text](#)

ORAL SESSIONS

Session YOA

ADVANCES IN MAGNETIC CHARACTERIZATION I

Xiaoyan Zhong, Chair

City University of Hong Kong, Kowloon, Hong Kong

- YOA-01. Quantitative optical imaging method of surface acoustic wave using optical path modulation.** *R. Hisatomi*^{1,2}, K. Taga¹, R. Sasaki³, Y. Shiota¹, T. Moriyama^{1,2} and T. Ono¹ *1. Kyoto University, Uji, Japan; 2. JST-PRESTO, Kawaguchi, Japan; 3. RIKEN, Wako, Japan*
[View Digest Text](#)
- YOA-02. Switching Dynamics of In-Plane Magnetized Spin-Orbit Torque Devices.** *P.S. Keatley*¹, T.H. Loughran¹, G. Mihajlović², L. Wan², Y. Choi², J. Katine² and R. Hicken¹ *1. Department of Physics and Astronomy, University of Exeter, Exeter, United Kingdom; 2. Western Digital Research Center, Western Digital Corporation, San Jose, CA, United States*
[View Digest Text](#)

- YOA-03. Soft X-ray Orbital Angular Momentum carrying beam: Generation and application in magnetic materials. (Invited)** S. Roy¹, M. McCarter¹, J. Woods^{2,3}, J. T Lee¹, A. Us-Saleheen¹, A. Singh⁴, R. Tumbleson^{4,5}, S. Morley¹, R.V. Chopdekar¹, A. Scholl¹, S. Kevan¹, X. Chen⁶, W. Hu⁶, C. Mazzoli⁶, B. Farmer², A. Tremsin⁷, S. Alexander⁸, B. McMorran⁸, W. Kwok³, L. De-Long² and T. Hastings⁹
1. Advanced Light Source, Lawrence Berkeley National Laboratory, Berkeley, CA, United States; 2. Dept. of Physics, University of Kentucky, Lexington, KY, United States; 3. Materials Sciences Division, Argonne National Laboratory, Lemont, IL, United States; 4. Materials Sciences Division, Lawrence Berkeley National Laboratory, Berkeley, CA, United States; 5. Dept. of Physics, University of California Santa Cruz, Santa Cruz, CA, United States; 6. National Synchrotron Light Source II, Brookhaven National Laboratory, Upton, NY, United States; 7. Space Sciences Lab, University of California, Berkeley, Berkeley, CA, United States; 8. Dept. of Physics, University of Oregon, Eugene, OR, United States; 9. Department of Electrical and Computer Engineering, University of Kentucky, Lexington, KY, United States
[View Digest Text](#)
- YOA-04. Schuster-periodogram based reconstruction of non-locked dynamical processes in time-resolved scanning transmission X-ray microscopy.** S. Finizio¹, J. Bailey^{1,2}, B. Olsthoorn³ and J. Raabe¹
1. Photon Science Division, Paul Scherrer Institut, Villigen PSI, Switzerland; 2. EPFL, Lausanne, Switzerland; 3. KTH Royal Institute of Technology, Stockholm, Sweden
[View Digest Text](#)
- YOA-05. New versatile instruments to measure element-specific and macroscopic hysteresis at ID12 of the ESRF.** A. Aubert¹, G. Gomez^{3,2}, K. Skokov¹, F. Wilhelm², H. Wende³, A. Rogalev², O. Gutfleisch¹ and K. Ollefs³
1. TU Darmstadt, Darmstadt, Germany; 2. European Synchrotron Radiation Facility, Grenoble, France; 3. University of Duisburg-Essen, Duisburg, Germany
[View Digest Text](#)
- YOA-06. Room-temperature magnetic antiskyrmions and anisotropic fractal magnetic domain textures in (Fe,Ni,Pd)₃P with S₄ symmetry. (Invited)** K. Karube¹, L. Peng¹, J. Masell^{1,2}, V. Ukleev³, J.S. White³, M. Hemmida⁴, H. Krug von Nidda⁴, I. Kézsmárki⁴, X. Yu¹, F. Kagawa^{1,5}, Y. Tokura^{1,6} and Y. Taguchi¹
1. RIKEN Center for Emergent Matter Science (CEMS), Wako, Japan; 2. Institute of Theoretical Solid State Physics, Karlsruhe Institute of Technology, Karlsruhe, Germany; 3. Laboratory for Neutron Scattering and Imaging, Paul Scherrer Institute, Villigen, Switzerland; 4. Experimental Physics V, University of Augsburg, Augsburg, Germany; 5. Department of Physics, Tokyo Institute of Technology, Meguro-ku, Japan; 6. Department of Applied Physics, University of Tokyo, Bunkyo-ku, Japan
[View Digest Text](#)
- YOA-07. Withdrawn**

- YOA-08. A sensitive magneto-optic Kerr effect and optical Hall effect technique based on large-amplitude magnetic field modulation.** *N. Am-Shalom*¹, *M. Korcia*¹, *N. Bernstein*¹ and *A. Capua*¹ *1. Applied Physics, The Hebrew University of Jerusalem, Jerusalem, Israel*
[View Digest Text](#)
- YOA-09. Scanning MOKE microscope for inspection of MRAM manufacturing.** *M. Numata*¹, *I. Kim*², *K. Suzuki*¹, *S. Ueyama*¹, *J. Kim*², *W. Kim*² and *M. Lee*² *1. Samsung Device Solutions R&D Japan, Samsung Japan Corporation, Yokohama, Japan; 2. Mechatronics Research, Samsung Electronics Co., Ltd., Hwaseong, The Republic of Korea*
[View Digest Text](#)
- YOA-10. Analysis of Magnetization Reversal Process of Non-Oriented Electromagnetic Steel Sheet by Extended Landau Free Energy Model.** *M. Taniwaki*¹, *A.L. Foggiatto*¹, *C. Mitsumata*¹, *T. Yamazaki*¹, *I. Obayashi*², *Y. Hiraoka*³, *Y. Igarashi*⁴, *Y. Mizutori*⁴, *H. Sepehri-Amin*⁵, *T. Ohkubo*⁵ and *M. Kotsugi*¹ *1. Materials Science, Tokyo University of Science, Tokyo, Japan; 2. Okayama University, Okayama, Japan; 3. Kyoto University, Kyoto, Japan; 4. University of Tsukuba, Tsukuba, Japan; 5. National Institute for Materials Science (NIMS), Tsukuba, Japan*
[View Digest Text](#)
- YOA-11. Magnetic Domain Observation of Grain-oriented Electrical Steel Sheet under Two-dimensional Excitation.** *D. Wakabayashi*¹, *T. Uchiyama*¹, *M. Oka*¹ and *M. Enokizono*^{1,2} *1. Nippon Bunri University, Oita, Japan; 2. Vector Magnetic Characteristic Technical Laboratory, Usa, Japan*
[View Digest Text](#)

ORAL SESSIONS

Session YOB

ADVANCES IN MAGNETIC CHARACTERIZATION II

Sujoy Roy, Chair

Lawrence Berkeley National Laboratory, Berkeley, CA, United States

- YOB-01. The Ferris-wheel ferromagnetic resonance technique.** *A. Rothschild*¹, *N. Am-Shalom*¹, *N. Bernstein*¹, *B.J. Assouline*¹ and *A. Capua*¹ *1. Applied Physics, The Hebrew University of Jerusalem, Jerusalem, Israel*
[View Digest Text](#)
- YOB-02. Optical Profiling of Surface-Acoustic-Wave Absorption due to Elastically Driven Ferromagnetic Resonance in Nickel.** *K. Maezawa*¹, *S. Fujii*¹, *K. Yamanoi*¹, *Y. Nozaki*¹ and *S. Watanabe*¹ *1. Physics, Keio University, Yokohama, Japan*
[View Digest Text](#)

- YOB-03. Atomic Scale Visualization of Magnetic Coupling at Individual Defects in Functional Materials by Spatially Resolved Electron Magnetic Circular Dichroism. (Invited)** X. Zhong^{1,2} and Z. Li^{1,2} 1. *Materials Science and Engineering, City University of Hong Kong, Hong Kong*; 2. *City University of Hong Kong Matter Science Research Institute (Futian, Shenzhen), Shenzhen, China*
[View Digest Text](#)
- YOB-04. Magnetic imaging by the anomalous Nernst effect using atomic force microscopy.** N.D. Budai^{1*}, H. Isshiki¹, R. Uesugi¹, Z. Zhu¹, T. Higo^{1,2}, S. Nakatsuji^{1,2} and Y. Otani^{1,3} 1. *Institute for Solid State Physics, The University of Tokyo, Kashiwa, Japan*; 2. *The Department of Physics, The University of Tokyo, Bunkyo-ku, Japan*; 3. *Center for Emergent Matter Science, RIKEN, Wako, Japan*
[View Digest Text](#)
- YOB-05. Magnetic Imaging of Spin Textures in a Chiral Magnet.** E. Marchiori¹, G. Romagnoli¹, A. Magrez² and M. Poggio¹ 1. *Department of Physics, University of Basel, Basel, Switzerland*; 2. *École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland*
[View Digest Text](#)
- YOB-06. In-situ correlation of electrical (magneto-)transport effects with magnetic textures in a transmission electron microscope. (Invited)** D. Pohl⁵, B. Rellinghaus⁵, S. Schneider⁵, Y. Lee¹, D. Kriegner^{2,3}, S. Beckert², P. Vir⁴, C. Felser⁴, M. Winter⁵ and A. Thomas^{2,1} 1. *IFW Dresden, Dresden, Germany*; 2. *IFMP, TU Dresden, Dresden, Germany*; 3. *FZU, Prague, Germany*; 4. *Max Planck Institute for Chemical Physics of Solids, Dresden, Germany*; 5. *DCN, TU Dresden, Dresden, Germany*
[View Digest Text](#)
- YOB-07. Spin canting at the surface of Fe₃O₄(001) imaged using a spin-polarized metastable helium beam.** P.D. Bentley^{2,1}, R.F. Evans², X. Sun⁴, M. Kurahashi³, A. Pratt² and Y. Yamauchi³ 1. *Quantum Materials and Applications Research Center, National Institutes for Quantum Science and Technology, Takasaki, Japan*; 2. *School of Physics, Engineering and Technology, University of York, York, United Kingdom*; 3. *National Institute for Materials Science (NIMS), Tsukuba, Japan*; 4. *University of Science and Technology of China, Anhui, China*
[View Digest Text](#)
- YOB-08. Simulations of magnetic Bragg scattering in transmission electron microscopy.** J. Snarski-Adamski¹, A. Edström², P. Zeiger³, J.Á. Castellanos-Reyes³, K. Lyon³, M. Werwinski¹ and J. Ruzs³ 1. *Institute of Molecular Physics, Polish Academy of Sciences, Poznan, Poland*; 2. *Department of Applied Physics, School of Engineering Sciences, KTH Royal Institute of Technology, AlbaNova University Center, Stockholm, Sweden*; 3. *Division of Materials Theory, Department of Physics and Astronomy, Uppsala University, Uppsala, Sweden*
[View Digest Text](#)

- YOB-09. Topological Spin Memory of Antiferromagnetically Coupled Skyrmions. (Invited) X. Cheng¹** *1. Physics, Bryn Mawr College, Bryn Mawr, PA, United States*
[View Digest Text](#)

POSTER SESSION

Session YPA
ADVANCES IN MAGNETIC CHARACTERIZATION III
(Poster Session)

Hendrik Ohldag, Chair
Lawrence Berkeley National Laboratory, Berkeley, CA, United States

- YPA-01. Ac Susceptibility Measurement Using a Vibrating Sample Magnetometer.** *M. Al-Mahdawi¹ and M. Oogane¹* *1. Tohoku University, Sendai, Japan*
[View Digest Text](#)
- YPA-02. High-Frequency Magnetic Field Energy Imaging of Magnetic Recording Head by Alternating Magnetic Force Microscopy with Superparamagnetic Tip.** *M. Makarova^{1,2}, K. Suzuki¹, H. Sonobe¹, T. Matsumura¹ and H. Saito¹* *1. Akita University, Akita, Japan; 2. Institute of Physics CAS, Prague, Czechia*
[View Digest Text](#)
- YPA-03. Imaging of Magnetic Nanoparticle Using Magnetic Particle Spectroscopy Data.** *N. Futagawa¹, M. Fujimoto¹, K. Higashino¹, T. Sasayama¹ and T. Yoshida¹* *1. Kyushu University, Fukuoka, Japan*
[View Digest Text](#)
- YPA-04. Visualization of the Magnetostriction Mechanism Using Machine Learning.** *A.L. Foggatto¹, Y. Mizutori², T. Yamazaki¹, S. Sato¹, K. Masuzawa¹, R. Nagaoka¹, M. Taniwaki¹, S. Fujieda³, S. Suzuki⁴, K. Ishiyama⁵, T. Fukuda⁶, Y. Igarashi², C. Mitsumata¹ and M. Kotsugi¹* *1. Faculty of Advanced Engineering, Tokyo University of Science, Katsushika, Japan; 2. Graduate School of System and Information Engineering, University of Tsukuba, Tsukuba, Japan; 3. Graduate school of engineering, Osaka University, Suita, Japan; 4. Micro System Integration Center, Tohoku University, Sendai, Japan; 5. Research Institute of Electrical Communication, Tohoku University, Sendai, Japan; 6. Fukuda Crystal Laboratory Co., Ltd., Sendai, Japan*
[View Digest Text](#)
- YPA-05. Investigation to Improve Stability in Magnetic Nanoparticle Tomography Using Direct Magnetic Field Compensation Circuit.** *M. Fujimoto¹, N. Futagawa¹, K. Higashino¹, T. Sasayama² and T. Yoshida²* *1. Electrical and Electronic Engineering, Kyushu University, Fukuoka-shi, Japan; 2. Faculty of information and electrical engineering, Kyushu University, Fukuoka-shi, Japan*
[View Digest Text](#)

- YPA-06. Polarized neutron transmission spectroscopy on an ultrafine grained steel.** *H. Mamiya*¹, *O. Yojiro*², *N. Terada*¹, *K. Hiroi*² and *t. shinohara*² *1. National Institute for Materials Science, Tsukuba, Japan; 2. Japan Atomic Energy Agency, Tokai, Japan*
[View Digest Text](#)
- YPA-07. Development of Pancake-type Gradiometer Receive Coil for Amplitude Modulated Open-sided Magnetic Particle Imaging.** *M. Tahir*¹, *T. Le*², *T. Cao*¹ and *J. Yoon*¹ *1. School of Integrated Technology, Gwangju Institute of Science and Technology, Gwangju, The Republic of Korea; 2. Department of Physiology and Biomedical Engineering, Mayo Clinic, Scottsdale, AZ, United States*
[View Digest Text](#)
- YPA-08. In-situ Magnetizing Holder with Strong In-plane Field for Lorentz Microscopy.** *W. Xia*¹, *J. Qin*¹, *T. Bai*¹, *X. Sun*¹, *R. Chen*¹, *A. Yan*¹ and *W. Li*¹ *1. Ningbo Institute of Materials Technology and Engineering, CAS, Ningbo, China*
[View Digest Text](#)

ORAL SESSIONS

Session ZOA EMERGING AND INTERDISCIPLINARY TOPICS IN MAGNETISM I

Mengmeng Yang, Chair
 Anhui University

- ZOA-01. Spin revolution breaks time reversal symmetry of rolling magnets.** *E.Y. Vedmedenko*¹ *1. Physics, University of Hamburg, Hamburg, Germany*
[View Digest Text](#)
- ZOA-02. Thermal noise magnetometry as an emerging magnetic characterization technique.** *K. Everaert*^{1,2}, *B. Van Waeyenberge*¹, *F. Wiekhorst*² and *J. Leliaert*¹ *1. Dept. of Solid State Sciences, Ghent University, Ghent, Belgium; 2. Metrology for Magnetic Nanoparticles, Physikalisch-Technische Bundesanstalt, Berlin, Germany*
[View Digest Text](#)
- ZOA-03. Low-frequency magnetic incremental permeability for the evaluation of thick carburization levels.** *Y. Tene Deffo*¹, *G. Sebald*², *C. Gallais*³, *O. Ghibaudo*³ and *B. Ducharne*^{2,4} *1. Faculty of Engineering and Technology, University of Buea, Buea, Cameroun, Buea, Cameroon; 2. ELyTMAX, CNRS, Univ Lyon, INSA Lyon, Centrale Lyon, Université Claude Bernard Lyon 1, Tohoku University, Japan, Sendai, Japan; 3. Audit et R&T Industriels, SAFRAN TRANSMISSION SYSTEMS, Colombes, France, Colombes, France; 4. Univ. Lyon, INSA Lyon, LGEF EA682, Villeurbanne, France, Lyon, France*
[View Digest Text](#)

- ZOA-04. Applications of thermoplasmonics to nanomagnetic logic. (Invited)** P. Vavassori^{1,2}, M. Menniti¹, P. Gypens³ and J. Leliaert³ *1. CIC nanoGUNE BRTA, San Sebastian, Spain; 2. Ikerbasque, Bilbao, Spain; 3. Dept. of Solid State Sciences, Ghent University, Ghent, Belgium*
[View Digest Text](#)
- ZOA-05. Polarization caloritronics and “ferron” excitations in ferroelectric materials.** P. Tang¹, R. Iguchi², K. Uchida² and G. Bauer^{1,3} *1. Tohoku University, Sendai, Japan; 2. National Institute for Materials Science (NIMS), Tsukuba, Japan; 3. University of Groningen, Groningen, Netherlands*
[View Digest Text](#)
- ZOA-06. Prediction of Magnetocrystalline Anisotropy Constant in FeCoNi Alloys using Machine Learning.** R. Sudo¹ and M. Oogane^{1,2} *1. Department of Applied Physics, Graduate School of Engineering, Tohoku University, Sendai, Japan; 2. Center for Science and Innovation in Spintronics (Core Research Cluster), Organization for Advanced Studies, Tohoku University, Sendai, Japan*
[View Digest Text](#)
- ZOA-07. Tetraazaphthalotetraphene based two-dimensional transition metal organic frameworks: Spin-gapless semiconductor, quantum anomalous Hall effect and electrocatalysts for CO₂ reduction.** Y. Wang¹ and W. Mi¹ *1. Department of Applied Physics, Tianjin University, Tianjin, China*
[View Digest Text](#)
- ZOA-08. Influence of Magnetic Field on Evaporation of Water and Ionic Solutions.** J. Coey¹, L. Coburn-Moran¹ and J. Quirke¹ *1. Physics, Trinity College Dublin, Dublin, Ireland*
[View Digest Text](#)
- ZOA-09. Magnetic-field-assisted photocatalysis of N-TiO₂ nanoparticles.** L. Cervera-Gabalda¹, E. Garaio¹, J. Beato-Lopez¹, J. Pérez-Landazábal¹ and C. Gomez-Polo¹ *1. Science Dept & INAMAT2, Universidad Publica de Navarra, Pamplona, Spain*
[View Digest Text](#)
- ZOA-10. Design and Performance of a Compact 3D-Printed Magnetorheological Fluid Damper.** J. Park¹, Y. Choi¹, A. Flatau¹ and N. Wereley¹ *1. Aerospace Engineering, University of Maryland, College Park, MD, United States*
[View Digest Text](#)
- ZOA-11. An Electroplated Magnetic NiFe Film Based Electromagnetic Targeting for Interlocking-Nail Broken-Bone Surgery.** M. Kohli¹, T. Chai¹, I. Chen¹, T. Wong², W. Hsu¹ and T. Chung^{1,3} *1. Department of Mechanical Engineering, National Yang Ming Chiao Tung University, Hsinchu, Taiwan; 2. Department of Orthopedics, National Taiwan University Hospital Hsinchu Branch, Hsinchu, Taiwan; 3. International College of Semiconductor Technology, National Yang Ming Chiao Tung University, Hsinchu, Taiwan*
[View Digest Text](#)

- ZOA-12. Holding Performance of an Adaptive Magnetorheological Fluid-Based Robotic Claw.** Y. Choi¹, C. Hartzell¹ and N. Wereley¹ *1. Aerospace Engineering, University of Maryland, College Park, MD, United States*
[View Digest Text](#)
- ZOA-13. A wearable magnetic skin system for touchless human-computer interactions.** J. Zhang^{1,2}, Z. Jin¹, G. Chen¹ and J. Chen^{1,2} *1. Chinese Academy of Sciences, State Key Laboratory of Transducer Technology, Aerospace Information Research Institute, Beijing, China; 2. University of Chinese Academy of Sciences, School of Electronic, Electrical and Communication Engineering, Beijing, China*
[View Digest Text](#)
- ZOA-14. Magnetic Bionic Hair Array for Sliding Tactile Sensing and Object Recognition.** J. Man^{1,2}, Z. Jin¹ and J. Chen^{1,2} *1. State Key Laboratory of Transducer Technology, Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing, China; 2. School of Electronic, Electrical and Communication Engineering, University of Chinese Academy of Sciences, Beijing, China*
[View Digest Text](#)

POSTER SESSION

Session ZPA
EMERGING AND INTERDISCIPLINARY TOPICS IN
MAGNETISM II
(Poster Session)

Elena Vedmedenko, Chair
University of Hamburg, Hamburg, Germany

- ZPA-01. Control of non-reciprocal critical current by ferromagnetism.** H. Narita¹, J. Ishizuka², D. Kan^{1,3}, Y. Shimakawa^{1,3}, Y. Yanase⁴ and T. Ono^{1,3} *1. Institute for Chemical Research, Kyoto University, Uji, Japan; 2. Niigata University, Niigata, Japan; 3. CSRN, ICR, Kyoto University, Uji, Japan; 4. Physics, Kyoto University, Kyoto, Japan*
[View Digest Text](#)
- ZPA-02. Spin-current Driven Magnetic Meta-atoms for Time-Varying Permeability.** R. Shimizu¹, T. Kodama², N. Kikuchi³, S. Okamoto^{3,4}, S. Ohno¹ and S. Tomita^{1,2} *1. Department of Physics, Tohoku University, Sendai, Japan; 2. Institute for Excellence in Higher Education, Tohoku University, Sendai, Japan; 3. Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Sendai, Japan; 4. Center for Science and Innovation in Spintronics, Tohoku University, Sendai, Japan*
[View Digest Text](#)
- ZPA-03. A New Observation System for Nonlinear Localized Oscillation Using Commercially Available Magnet.** Y. Mogi¹ and M. Kato¹ *1. Electrical and Electronics Systems, Ibaraki University, Ibaraki, Japan*
[View Digest Text](#)

- ZPA-04. Effect of Instability of Ferrofluid for enhanced EMI shielding in Ku-Band.** Y. Li¹, H. Kuan¹ and H. Hsieh¹
1. Mechanical and Aerospace, Chung-Cheng Institute of Technology, National Defense University, Taoyuan, Taiwan
[View Digest Text](#)
- ZPA-05. Electride and Magnetic Properties of Ternary Intermetallic Compounds LaTMSi.** A. Dyachenko¹, A. Lukoyanov^{1,2} and V. Anisimov^{1,2}
1. M.N. Mikheev Institute of Metal Physics Ural Branch of Russian Academy of Sciences, Ekaterinburg, Russian Federation; 2. Ural Federal University named after B.N. Yeltsin, Ekaterinburg, Russian Federation
[View Digest Text](#)
- ZPA-06. Emergent Magneto-Inductance Effect in Ni₄₅Fe₅₅ Thin Films on Polycarbonate Substrates.** Z. Zhang¹, Y. Matsushima¹, Y. Ohashi¹, M. Matsuzaka¹ and H. Kaiju^{1,2}
1. Faculty of Science and Technology, Keio University, Yokohama, Japan; 2. Center for Spintronics Research Network, Keio University, Yokohama, Japan
[View Digest Text](#)
- ZPA-07. Enhancement of non-destructive evaluation by combining induction thermography and eddy current testing techniques.** W. Cheng^{1,2}
1. NDE Center, Japan Power Engineering and Inspection Corporation, Yokohama, Japan; 2. Department of Quantum Science and Energy Engineering, Tohoku University, Sendai, Japan
[View Digest Text](#)
- ZPA-08. Fabrication of Thermoelectric Ribbon-Shaped Fe₃Al Alloys with Large Anomalous Nernst Effect.** H. Takigawa¹, T. Taguchi¹, T. Takahashi¹, A. Sakai² and S. Nakatsuji²
1. Inorganic Materials Development Dept, Murata Manufacturing Co., Ltd., Nagaokakyo-shi, Japan; 2. Department of Physics, University of Tokyo, Bunkyo-ku, Japan
[View Digest Text](#)
- ZPA-09. Magnetic MXene: A Machine Learning Model with Small Data.** Y. Khatri¹, V. Atpadkar¹, A. Agarwal¹ and A. Kashyap¹
1. Indian Institute of Technology, Mandi, Mandi, India
[View Digest Text](#)
- ZPA-10. Magnetite/copolymer Nanosphere Added Soft-Magnetic Carbonyl Iron Based Magnetorheological Fluid and Its Damping Performance.** W. Han¹, G. Wang¹ and F. Yang¹
1. Energy and Power Engineering, Nanjing University of Science and Technology, Nanjing, China
[View Digest Text](#)
- ZPA-11. Monitoring Ionic Diffusion from CoB in Molecular layers.** D.L. Roe¹, A. Caruana², S. Langridge², C. Kinane² and O. Cespedes¹
1. Physics and Astronomy, University of Leeds, Rotherham, United Kingdom; 2. ISIS, Rutherford Appleton Laboratory, Didcot, United Kingdom
[View Digest Text](#)

- ZPA-12. Application of Oleic acid functionalized Fe₃O₄ magnetic nanoparticles for adsorption of oil from emulsified solutions.** G.C. Hermosa¹, L. Fang², C. Liao¹, C. Chang³, C. Chang^{3,5}, S. Wang⁴ and A.A. Sun^{1,5} 1. Department of Chemical Engineering & Materials Science, Yuan Ze University, Taoyuan, Taiwan; 2. Department of Mechanical and Industrial Engineering, Vanung University, Taoyuan, Taiwan; 3. Division of General Surgery, Far Eastern Memorial Hospital, New Taipei City, Taiwan; 4. Department of Materials and Mineral Resources Engineering, National Taipei University of Technology, Taipei, Taiwan; 5. Graduate School of Biotechnology and Bioengineering, Yuan Ze University, Taoyuan, Taiwan
[View Digest Text](#)
- ZPA-13. Transmission spectra of magnetic fluids with magnetite nanoparticles in the visible and near-IR regions.** C.V. Yerin¹ and V.I. Vivchar¹ 1. Physical and Technical Faculty, North Caucasus Federal University, Stavropol, Russian Federation
[View Digest Text](#)
- ZPA-14. Optically powered milli-scale robot system for nanoliter fluid delivery based on diamagnetic levitation.** M. Beauchamp¹, S. Yee¹, I. O'Carroll¹, E. Chapman¹ and H. Elbidweihy¹ 1. United States Naval Academy, Annapolis, MD, United States
[View Digest Text](#)
- ZPA-15. Withdrawn**

- A -

Abad, A. (EOA-10)	62	Akai, H. (SA-06)	2
Aballe, L. (UOA-05)	175	Akai, H. (UOB-10)	177
Aballe, L. (XOD-14)	209	Akamatsu, J. (POA-11)	127
Abd-El-Hafiz, S. (KPA-17)	100	Akamatsu, J. (POA-12)	127
Abdel-Mottaleb, M. (EOB-14)	65	Akamatsu, J. (PPB-12)	134
Abdel-Mottaleb, M. (ROA-04)	146	Akamatsu, J. (VOB-10)	182
Abdelsamie, A. (SOD-03)	155	Akatani, H. (APB-09)	17
Abdukayumov, K. (COD-09)	38	Akdogan, O. (WOC-14)	194
Abe, H. (POB-02)	128	Åkerman, J. (AOB-05)	11
Abe, M. (GOA-03)	74	Åkerman, J. (BOD-08)	27
Abe, M. (QPB-07)	145	Åkerman, J. (BOD-09)	27
Abe, M. (WPC-01)	200	Åkerman, J. (DOA-10)	47
Abe, S. (POA-11)	127	Åkerman, J. (DOC-09)	50
Abe, S. (POA-12)	127	Åkerman, J. (DPA-04)	54
Abe, S. (PPB-12)	134	Åkerman, J. (DPC-02)	58
Abe, S. (VOB-10)	182	Åkerman, J. (NOB-06)	116
Abe, T. (KPA-05)	98	Åkerman, J. (POA-01)	126
Abert, C. (BOC-09)	25	Åkerman, J. (POA-02)	126
Abert, C. (CPA-10)	42	Åkerman, J. (POA-03)	126
Abert, C. (NOA-01)	113	Åkerman, J. (SOA-06)	150
Abert, C. (SOB-02)	151	Åkerman, J. (SPA-14)	163
Abert, C. (SOD-08)	156	Åkerman, J. (TOA-11)	165
Abert, C. (TOC-01)	168	Akhundzada, S. (XOA-05)	202
Abert, C. (TOC-06)	169	Akin, Y. (ROA-04)	146
Abert, C. (TOC-07)	169	Akiyama, T. (KOA-08)	97
Abiane, H. (MOA-09)	106	Akuru, U.B. (HPA-04)	81
Ablets, Y. (EOA-02)	61	Akuru, U.B. (IOA-02)	84
Ablets, Y. (EOA-07)	62	Akuru, U.B. (IOB-02)	86
Abreu Araujo, F. (NOB-05)	115	Akutagawa, T. (APA-05)	15
Abreu Araujo, F. (SOB-08)	152	Al Saidi, W.Z. (CPA-19)	43
Abreu Araujo, F. (TOA-08)	164	Al Saidi, W.Z. (NPA-05)	118
Abreu Araujo, F. (XOC-01)	205	Al-Mahdawi, M. (POC-12)	132
Acebrón, M. (XOD-03)	207	Al-Mahdawi, M. (YPA-01)	218
Adabifiroozjaei, E. (EOA-07)	62	Ala-Nissila, T. (COB-02)	33
Adabifiroozjaei, E. (QOA-09)	139	Alahmed, L. (COC-09)	36
Adabifiroozjaei, E. (WOA-10)	189	Alam, A. (COC-08)	36
Adabifiroozjaei, E. (WOB-08)	191	Alaqtash, N. (WOD-13)	196
Adachi, Y. (EPA-06)	66	Alba Venero, D. (XOD-05)	208
Adachi, Y. (EPB-11)	69	Alberteris Campos, M. (EOB-14)	65
Adam, J. (SOC-08)	153	Alberteris Campos, M. (ROA-04)	146
Adam, J. (SOD-03)	155	Alem, N. (COD-01)	37
Adelmann, C. (NOA-05)	114	Alexander, S. (YOA-03)	215
Adelmann, C. (QOA-02)	138	Alff, L. (XOA-07)	202
Adelmann, C. (SG-04)	8	Algueta-Miguel, J. (KPA-04)	98
Adeyeye, A.O. (SOE-02)	157	Ali, M. (BOB-11)	23
Adeyeye, A.O. (SOE-04)	157	Ali, M. (OOB-15)	123
Adeyeye, A.O. (TOB-10)	166	Ali, Q. (SA-06)	2
Adly, A. (KPA-17)	100	Ali, Q. (SOB-03)	151
Adly, A.A. (QOB-06)	140	Ali, Q. (TOC-12)	170
Adrianto, N. (XPC-07)	211	Ali, Q. (WOA-03)	188
Aeschlimann, M. (BOB-05)	23	Allen, C.S. (APA-08)	16
Aeschlimann, M. (SOF-03)	159	Allia, P. (EOB-03)	63
Aeschlimann, M. (SOF-07)	160	Allwood, D. (WOD-06)	195
Aeschlimann, M. (TOB-06)	166	Almeida, M.D. (EPB-08)	68
Afremov, L. (XPA-08)	213	Alnaser, H.F. (COE-01)	39
Afremov, L. (XPA-09)	213	Alonso, J. (EOA-01)	61
Agarwal, A. (ZPA-09)	222	Alonso, J. (EOA-10)	62
Agarwal, N. (SOF-05)	160	Alosaimi, N. (OOB-15)	123
Ahlawat, A. (UOA-03)	175	Alotaibi, M. (XOA-10)	203
Ahmed, M.Z. (OPA-03)	124	Alotibi, S. (BOB-11)	23
Ahn, H. (CPA-03)	41	Alsaad, A. (WOD-13)	196
Ahn, H. (EPA-11)	67	Althammer, M. (BPA-13)	29
Ahn, J. (OPB-09)	125	Althammer, M. (DOC-11)	51
Ahn, J. (WPB-12)	199	Alvarado, S.F. (COD-05)	38
Ahn, M. (EPA-13)	67	Álvarez-Prado, L.M. (TOB-13)	167
Ahn, S. (KPA-23)	101	Am-Shalom, N. (AOB-11)	12
Ahn, S. (XPB-04)	210	Am-Shalom, N. (YOA-08)	216
Ahn, S. (XPB-10)	210	Am-Shalom, N. (YOB-01)	216
Ahrens, V. (SOB-01)	151	Amann, A. (DOA-02)	46
Aizawa, T. (OPA-01)	123	Amano, H. (XPC-01)	211
Aizawa, T. (OPA-02)	123	Amara, Y. (IOA-12)	85
Aizu, S. (MOB-07)	109	Amara, Y. (IOB-12)	87
Ajejas, F. (AOB-09)	12	Amara, Y. (IPA-09)	88
Ajejas, F. (TOB-03)	165	Amara, Y. (LOA-10)	102
Ajia, S. (POA-13)	128	Ambriz, I. (EOB-02)	63
Akagi, F. (WPC-05)	200	Amemiya, K. (DOD-02)	51
		Amemiya, K. (NOA-10)	114

*Best student presentation award finalist

Ameziane, M. (DOE-04)	53	Asfirane, S. (IOA-12)	85
Ameziane, M. (DOE-06)	53	Asfirane, S. (IOB-12)	87
Amin, O. (XOB-01)	203	Asfirane, S. (IPA-09)	88
Amrusi, S. (POC-02)	130	Ashok	
An, K. (SOD-13)	157	Krishnaswamy, S. (WOB-07)	191
An, S. (GPB-08)	78	Ashok	
An, S. (GPB-09)	78	Krishnaswamy, S. (WOB-12)	191
Anacleto, P. (SG-02)	8	Askarian, I. (MOA-09)	106
Anacleto, P. (SG-03)	8	Asselberghs, I. (NOA-05)	114
Anacleto, P. (TOB-08)	166	Asselberghs, I. (QOA-02)	138
Anacleto, P. (TPA-08)	171	Assouline, B.J. (AOB-11)	12
Anadón, A. (COD-07)	38	Assouline, B.J. (DOB-10)	49
Analytis, J. (NOA-04)	114	Assouline, B.J. (TOA-05)	164
Anane, A. (SB-05)	3	Assouline, B.J. (YOB-01)	216
Anane, A. (SOC-08)	153	Atcheson, G. (DOC-02)	49
Anane, A. (SOD-03)	155	Atcheson, G. (XOB-04)	204
Anane, A. (SOD-13)	157	Athul, S. (QPA-11)	143
Anane, A. (SOE-12)	159	Atkinson, D. (SOE-02)	157
Anane, A. (UOA-04)	175	Atkinson, D. (TOB-10)	166
Anaya-Lara, O. (KPA-21)	100	Atpadkar, V. (ZPA-09)	222
Anderson, A.A. (DPC-07)	59	Attané, J. (APC-12)	20
Anderson, I.E. (VOB-13)	182	Attané, J. (CPB-13)	45
Anderson, I.E. (WOA-04)	188	Attané, J. (DOB-11)	49
Ando, Y. (AOA-11)	10	Atxitia, U. (CPB-03)	44
Ando, Y. (VPA-04)	184	Aubert, A. (QOA-07)	139
Ando, Y. (VPA-10)	184	Aubert, A. (WOB-08)	191
Andrade, L.H. (TOB-16)	167	Aubert, A. (WOD-09)	195
Andre, V. (EOB-14)	65	Aubert, A. (YOA-05)	215
Andreas, B. (DOC-12)	51	Auffret, S. (APC-12)	20
Andrejevic, J. (SA-02)	2	Auffret, S. (COA-04)	31
Andrejevic, N. (SA-02)	2	Auffret, S. (DPC-06)	59
Ang, C.C. (DPA-07)	54	Auffret, S. (NOB-04)	115
Angel, M. (BOB-05)	23	Autieri, C. (XOB-10)	205
Angel, M. (BOC-06)	25	Avci, C.O. (AOC-01)	13
Angel, M. (NOA-01)	113	Avdeev, M. (UPA-09)	178
Angel, M. (UOA-05)	175	Awad, A. (DOA-10)	47
Angelakeris, M. (SC-02)	4	Awad, A. (DPA-04)	54
Anghel, L. (NOB-09)	116	Awad, A. (NOB-06)	116
Anghel, L. (PPA-03)	132	Awad, A. (POA-02)	126
Anh, L.D. (UOB-01)	176	Awad, A. (SOA-06)	150
Anil Kumar, P. (BPA-19)	30	Awad, A.A. (AOB-05)	11
Anisimov, V. (ZPA-05)	222	Awad, A.A. (DPC-02)	58
Antonov, V. (APC-01)	18	Awano, H. (QOB-10)	141
Antonov, V. (APC-05)	19	Awano, H. (QPA-03)	142
Antunes de Oliveira, N. (QPA-09)	143	Aydin, M. (JOA-05)	91
Aoki, Y. (OOA-06)	120	Aydin, M. (POB-10)	129
Aoyama, M. (CPB-06)	44	Azhar, A. (DPC-07)	59
Appino, C. (SF-02)	7		
Arai, K. (VPB-14)	187		
Araki, Y. (ROB-07)	148		
Arango, I. (AOC-10)	14		
Arata, M. (VOA-02)	179		
Araujo, P. (POC-05)	131		
Araujo, P. (TOC-09)	169		
Arifin, M. (XPC-07)	211		
Arimatsu, K. (MOB-07)	109		
Arita, R. (BOA-04)	20		
Arnay, I. (COD-07)	38		
Arockia Doss, V. (TPC-07)	174		
Arockia Doss, V. (XPC-11)	212		
Arregi, J.A. (ROA-03)	146		
Arregi, J.A. (XOA-01)	201		
Arreguin			
Hernandez, M.d. (QPA-06)	142		
Arroo, D. (SOE-03)	157		
Arun, K. (QPA-11)	143		
Asada, H. (DPA-09)	55		
Asada, H. (EPB-04)	68		
Asahina, E. (HOA-07)	81		
Asahina, E. (MOB-06)	108		
Asai, M. (VOA-02)	179		
Asama, R. (BOA-08)	21		
Asami, K. (IOB-10)	87		
Asano, H. (CPA-16)	43		
Asari, Y. (VOB-07)	182		
Asari, Y. (VOB-15)	183		
Asenjo, A. (SD-01)	5		

- B -

Baba, S. (KPA-12)	99
Babković, K. (PPC-01)	134
Babu, P. (TOC-10)	169
Back, C.H. (SOC-13)	154
Backes, D. (BOB-05)	23
Baczewski, L.T. (XOB-05)	204
Badura, A. (BOA-09)	21
Baek, G. (PPB-01)	133
Baghel, A. (GPB-15)	79
Bagri, A. (UOA-03)	175
Bai, H. (DOA-01)	46
Bai, J. (HOA-05)	80
Bai, J. (HPA-20)	84
Bai, L. (JOA-10)	91
Bai, S. (POB-07)	129
Bai, T. (YPA-08)	219
Bai, X. (LPA-06)	103
Bai, Y. (JPB-11)	95
Bai, Z. (WPA-10)	197
Bailey, J. (YOA-04)	215
Bainsla, L. (DOA-10)	47
Bainsla, L. (DPA-04)	54
Balakrishnan, G. (COB-01)	32
Balakrishnan, G. (COB-07)	33
Balakrishnan, G. (COB-08)	34
Balakrishnan, G. (COE-10)	41
Balcells, L. (SC-02)	4

*Best student presentation award finalist

Baldrati, L. (BOB-05)	23	Bejarano, M. (SOE-11)	158
Baldrati, L. (BOC-06)	25	Belmeguenai, M. (COA-04)	31
Baldrati, L. (SOF-03)	159	Belmeguenai, M. (DOD-06)	52
Balicas, L. (COC-09)	36	Ben Youssef, J. (SOD-13)	157
Balland, T.S. (DPB-08)	57	Ben, T. (FPA-07)	73
Balliet, J. (QOA-02)	138	Benabou, A. (MOB-05)	108
Baltz, V. (BOA-09)	21	Bender, P. (XOD-05)	208
Baltz, V. (BOB-03)	22	Beneke, G. (BOC-06)	25
Baltz, V. (COA-07)	31	Beneke, G. (COA-10)	32
Bandyopadhyay, S. (QPB-13)	145	Benetti, L. (NOB-03)	115
Bangar, H. (DPC-10)	59	Benetti, L. (NOB-05)	115
Banu, N. (VOB-12)	182	Benetti, L. (PPA-03)	132
Bao, X. (FPA-01)	72	Benetti, L. (SG-02)	8
Bao, X. (JPA-05)	93	Benetti, L. (SG-03)	8
Bao, X. (JPB-08)	95	Benetti, L. (TOB-08)	166
Bao, X. (MPB-11)	113	Benetti, L. (TPA-08)	171
Bao, X. (WPA-03)	196	Bentley, P.D. (BOB-13)	24
Bao, X. (WPA-08)	197	Bentley, P.D. (XOA-10)	203
Baraduc, C. (COA-04)	31	Bentley, P.D. (YOB-07)	217
Baraduc, C. (POB-05)	129	Berganza, E. (SD-01)	5
Barakat, G. (IOA-12)	85	Bergenti, I. (XOA-10)	203
Barakat, G. (IPA-09)	88	Berger, F. (EOB-01)	63
Barakat, G. (LOA-10)	102	Bergeret, F. (AOC-10)	14
Barandiaran, J. (PPD-02)	137	Berja, A. (UOA-05)	175
Bardotti, L. (XOC-11)	206	Berja, A. (XOD-14)	209
Baringthon, L. (COD-04)	37	Bernardi, P. (WOD-03)	194
Barker, J. (BPA-17)	30	Bernevig, B. (SA-02)	2
Barker, J. (SOB-04)	151	Bernstein, N. (AOB-11)	12
Barman, A. (XOC-06)	206	Bernstein, N. (DOB-10)	49
Barra, A. (BOB-03)	22	Bernstein, N. (TOA-05)	164
Barrera, G. (EOB-03)	63	Bernstein, N. (YOA-08)	216
Barreteau, C. (UPA-09)	178	Bernstein, N. (YOB-01)	216
Barry, J.R. (OOA-05)	120	Berritta, M. (BOD-07)	27
Barry, P.S. (SB-03)	3	Bertacco, R. (SG-05)	8
Barsoum, M. (QPA-05)	142	Bertolini, G. (XOA-10)	203
Bartasyte, A. (QOB-03)	140	Beye, M. (SOF-05)	160
Barthelemy, A. (SOD-03)	155	Bharadwaj, V. (COB-03)	33
Barthélémy, D. (EOA-08)	62	Bhardwaj, V. (COC-08)	36
Barton, L. (XOB-01)	203	Bhatnagar- Schöffmann, T. (COA-11)	32
Barwal, V. (AOA-04)	9	Bhatnagar- Schöffmann, T. (DOD-06)	52
Battle, X. (SC-01)	4	Bhatt, R.C. (BPA-16)	30
Bauer, G. (DOA-07)	47	Bhattacharjee, P.P. (XPA-10)	214
Bauer, G. (DOB-07)	48	Bhattacharya, A. (DPA-05)	54
Bauer, G. (SB-01)	3	Bhowmik, D. (NOB-10)	116
Bauer, G. (TOA-12)	165	Bhukta, M. (COB-03)	33
Bauer, G. (TOB-17)	168	Bhukta, M. (COB-13)	34
Bauer, G. (ZOA-05)	220	Bhuktare, S. (BOC-04)	25
Bauer, J. (SPA-06)	162	Bi, L. (CPB-04)	44
Bauernfeind, V. (UPA-07)	178	Bi, L. (QOB-12)	141
Bayazit, G. (LOA-05)	101	Bi, S. (JPB-14)	96
Bazrov, M. (APC-01)	18	Bi, Y. (HPA-17)	83
Bazrov, M. (APC-05)	19	Bi, Y. (JPB-02)	94
Bazrov, M. (XPC-08)	212	Bian, F. (FPA-05)	72
Béa, H. (COA-04)	31	Bian, G. (AOA-03)	9
Beach, G. (NOA-04)	114	Bian, M. (COC-10)	36
Beach, G. (VOB-01)	181	Bian, W. (JOA-02)	91
Beato-Lopez, J. (KPA-04)	98	Bianchi, N. (GPB-02)	78
Beato-Lopez, J. (ZOA-09)	220	Bianchin, L. (WOD-08)	195
Beatrice, C. (SF-03)	7	Bibes, M. (APC-12)	20
Beauchamp, M. (ZPA-14)	223	Bibes, M. (DOB-11)	49
Beaulieu, N. (SOD-13)	157	Bibes, M. (SOD-03)	155
Becherer, M. (SOB-01)	151	Biela, J. (MOA-01)	105
Becherer, M. (SOC-12)	154	Biela, J. (MOA-06)	106
Becker, S. (BOB-03)	22	Bin, Z. (CPB-04)	44
Beckert, S. (BOA-09)	21	Binda, F. (COD-05)	38
Beckert, S. (YOB-06)	217	Biniskos, N. (SOE-08)	158
Beckmann, B. (QOA-09)*	139	Birch, M. (COB-01)	32
Beckmann, B. (QPA-05)	142	Birch, M. (COE-10)	41
Beckmann, B. (QPA-12)	143	Bird, J. (COC-10)	36
Bedanta, S. (ROA-01)	146	Bird, J. (KOA-05)	97
Bednarz, B. (BOB-05)	23	Bird, J. (KPA-18)	100
Bednarz, B. (BOC-06)	25	Bird, T. (XOA-10)	203
Begueret, J. (SG-03)	8	Bittner, F. (WOB-02)	190
Behera, N. (DOA-10)	47	Björling, A. (XOB-01)	203
Behera, N. (DPA-04)	54	Blanco Rodríguez, J.Á. (XOD-05)	208
Behera, N. (POA-02)	126		
Beigang, R. (DOC-13)	51		

*Best student presentation award finalist

Blanco, J. (VPA-05)	184	Braun, T. (WOB-05)	190
Blanco, J. (VPA-08)	184	Breiss, H. (PPB-04)	133
Blanco, J. (VPA-12)	185	Brems, M.A. (COA-10)	32
Blanter, Y. (SB-01)	3	Brems, M.A. (CPA-13)	43
Blanter, Y. (TOA-12)	165	Brereton, B. (COB-07)	33
Bläßer, J. (BOD-03)	26	Brereton, B. (COB-08)	34
Blonski, P.S. (COC-05)	35	Breth, L. (SOB-03)	151
Blügel, S. (COE-09)	40	Breth, L. (TOC-11)	169
Blügel, S. (SOE-08)	158	Brik, M. (DOB-10)	49
Boeglin, C. (SOF-05)	160	Brouwer, P. (DOA-11)	47
Boehnert, T. (NOB-03)	115	Bruce, C. (KOA-05)	97
Boehnert, T. (SG-02)	8	Bruce, C. (KPA-18)	100
Boehnert, T. (TPA-08)	171	Brückel, T. (SOE-08)	158
Boekelheide, Z. (EPB-06)	68	Bruckner, F. (CPA-10)	42
Bogach, A. (UOB-08)	177	Bruckner, F. (SOB-02)	151
Bogy, D.B. (OOA-07)	120	Bruckner, F. (TOC-01)	168
Böhnert, T. (TPA-09)	171	Bruckner, F. (TOC-06)	169
Bojoi, R. (MOA-04)	106	Bruckner, F. (TOC-07)	169
Bokor, J. (BOD-01)	26	Brueckl, H. (TOC-11)	169
Bollapragada, V. (OOA-01)	119	Brun, T. (POB-05)	129
Bollero, A. (WOD-03)	194	Brunt, D. (VOB-12)	182
Bollero, A. (WOD-08)	195	Brykin, L. (XPA-09)	213
Bollero, A. (WOD-09)	195	Bu, F. (FPA-09)	73
Bollero, A. (WOD-15)	196	Buda-Prejbeanu, L.D. (COA-04)	31
Bollero, A. (XOD-03)	207	Buda-Prejbeanu, L.D. (DPC-06)	59
Bolyachikin, A. (WOA-09)	189	Buda-Prejbeanu, L.D. (NOB-04)	115
Bolyachikin, A. (OOA-02)	120	Buda-Prejbeanu, L.D. (OOB-10)	122
Bolyachikin, A. (QOA-06)	138	Buda-Prejbeanu, L.D. (OPB-05)	125
Bolyachikin, A. (SF-04)	7	Buda-Prejbeanu, L.D. (SOA-01)	149
Bolyachikin, A. (WOA-02)	188	Budai, N.D. (YOB-04)*	217
Bolyachikin, A. (WOB-12)	191	Budinska, B. (SOD-08)	156
Bonanni, A. (UPA-07)	178	Bugnet, M. (XOC-11)	206
Bondarenko, A. (TOA-12)	165	Bull, C. (APA-08)	16
Bonell, F. (COC-11)	37	Bureš, R. (VOB-11)	182
Bonell, F. (COD-09)	38	Burghard, M. (COE-10)	41
Bonell, F. (COE-04)	39	Burkhardt, C. (WOB-03)	190
Bonell, F. (COE-08)	40	Burnell, G. (BOB-11)	23
Bonetti, S. (SOD-01)	155	Burnell, G. (OOB-15)	123
Bonnard, C. (FPA-13)	73	Burnell, G. (SOB-06)	151
Bony, B. (APB-06)	17	Burton, J. (CPB-14)	46
Borah, J. (EOA-09)	62	Bussiere, A. (OOB-14)	122
Borders, W. (NOB-11)	116	Byczynski, G. (IOB-05)	86
Borkowski, R. (COE-09)	40	Byerly, K. (VPA-01)	183
Bortolotti, P. (SG-03)	8		
Bortolotti, P. (SOD-03)	155		
Bortolotti, P. (SOE-12)	159		
Bortolotti, P. (TOB-09)	166		
Bossini, D. (BOB-01)	22		
Boughanmi, W. (MOB-05)	108		
Boukari, H. (COC-11)	37		
Boulle, O. (COA-04)	31		
Boulle, O. (TOA-01)	164		
Bourcin, G. (ROA-07)	147		
Bourdarot, F. (SOE-08)	158		
Bourgault, A.J. (IOB-05)	86		
Bouzehouane, K. (COA-02)	31		
Bouzehouane, K. (SOD-03)	155		
Bovensiepen, U. (SOF-05)	160		
Boventer, I. (SOD-03)	155		
Boventer, I. (SOE-12)	159		
Bowman, R.M. (SOA-02)	150		
Boyu, Z. (AOA-07)	10		
Boyu, Z. (BOD-02)	26		
Boyu, Z. (NOA-06)	114		
Boyu, Z. (XPB-07)	210		
Bozhko, D.A. (SOC-02)	152		
Bracikowski, N. (FOA-12)	71		
Bracikowski, N. (IOA-10)	85		
Bradley, H. (NPA-12)	119		
Bradley, J. (XOA-10)	203		
Braganca, P.M. (NOB-11)	116		
Brahlek, M. (COC-09)	36		
Bran, C. (SD-01)	5		
Brandao Veiga, P. (DPC-06)	59		
Brandt, L. (DOA-11)	47		
Branford, W.R. (SOE-03)	157		
Brataas, A. (COE-09)	40		

- C -

Caballero-Calero, O. (XOC-02)	205
Cabanas, A. (VOA-04)	180
Cabrera, D. (EOA-03)	61
Caçoiló, N. (OOB-10)	122
Caçoiló, N. (OPB-05)	125
Cagnon, L. (COA-04)	31
Cahaya, A.B. (DPC-07)	59
Cai, H. (NOB-13)	117
Cai, H. (NPA-14)	119
Cai, H. (NPA-16)	119
Cai, H. (OPB-06)	125
Cai, H. (OPB-07)	125
Cai, H. (OPB-08)	125
Cai, J. (DPA-10)	55
Cai, K. (DPA-03)	54
Cai, K. (OOB-08)	122
Cai, K. (OOB-13)	122
Cai, K. (OOB-16)	123
Cai, K. (OPB-10)	125
Cai, W. (GPA-02)	75
Cai, W. (GPA-03)	75
Cai, W. (GPA-04)	75
Cai, W. (OOB-07)	122
Cai, W. (POA-01)	126
Cai, Z. (HOA-04)	80
Cai, Z. (IOB-03)	86
Cai, Z. (POB-09)	129
Calavalle, F. (DOC-03)	50
Calvo, R. (COE-02)	39
Camarero, J. (COD-07)	38
Camley, R.E. (SOC-03)	153

*Best student presentation award finalist

Campiglio, P. (POC-07)	131	ChaBour, F. (IPA-09)	88
Campion, R. (XOB-01)	203	Chai, F. (GPA-02)	75
Campos-Gaona, D. (KPA-21)	100	Chai, T. (ZOA-11)	220
Camsari, K. (SD-04)	5	Chai, X. (FPA-05)	72
Canero-Infante, I. (XOC-11)	206	Chandra, C.K. (EOA-02)	61
Cantu, R. (QOB-05)	140	Chang, C. (CPB-01)	44
Cao, A. (CPA-07)	42	Chang, C. (DPB-09)	57
Cao, C. (WOD-14)	196	Chang, C. (EPA-12)	67
Cao, G. (IOB-09)	86	Chang, C. (HPA-03)	81
Cao, G. (IOB-11)	87	Chang, C. (WPB-11)	199
Cao, G. (IPB-10)	90	Chang, C. (XPA-05)	213
Cao, J. (XOA-03)	202	Chang, C. (ZPA-12)	223
Cao, K. (OOB-05)	121	Chang, C.L. (SB-03)	3
Cao, K. (OOB-07)	122	Chang, H. (JPB-17)	96
Cao, K. (POA-01)	126	Chang, H. (WPA-05)	197
Cao, R. (TPA-07)	171	Chang, H. (WPA-06)	197
Cao, S. (BOB-03)	22	Chang, H.W. (ROB-02)	148
Cao, T. (YPA-07)	219	Chang, H.W. (WPB-11)	199
Cao, Y. (RPA-05)	149	Chang, J. (KOA-04)	97
Cao, Y. (SOE-10)	158	Chang, J. (KOA-06)	97
Cao, Z. (GOA-01)	74	Chang, T. (DOA-04)	46
Capua, A. (AOB-11)	12	Chang, T. (HPA-07)	82
Capua, A. (DOB-10)	49	Chang, T. (IPB-05)	89
Capua, A. (TOA-05)	164	Chang, T. (JPB-16)	96
Capua, A. (YOA-08)	216	Chang, W.C. (WPA-05)	197
Capua, A. (YOB-01)	216	Chang, W.C. (WPA-06)	197
Carbone, D. (XOB-01)	203	Chang, W.C. (WPB-11)	199
Cardoso, S. (AOC-09)	14	Channagoudra, G. (UOA-03)	175
Cardoso, S. (POC-05)	131	Chantrell, R.W. (BPA-07)	29
Cardoso, S. (TOC-09)	169	Chantrell, R.W. (NPA-04)	118
Caretta, L.M. (NOA-04)	114	Chantrell, R.W. (SC-02)	4
Carley, R. (SOF-05)	160	Chantrell, R.W. (SOB-05)	151
Carlotti, G. (CPA-14)	43	Chantrell, R.W. (TOC-05)	168
Caro Patiño, J. (QPA-09)	143	Chantrell, R.W. (TPC-05)	173
Caron, L. (QOA-08)	139	Chantrell, R.W. (WOD-01)	194
Caron, L. (QOB-01)	140	Chantrell, R.W. (WPA-14)	198
Carpenter, R. (DOE-02)	53	Chao, P. (IOB-06)	86
Carpenter, R. (DPA-03)	54	Chao, S. (DPB-09)	57
Carpenter, R. (OOB-06)	121	Chao, Y. (COC-01)	35
Carpenter, R. (OOB-12)	122	Chapman, E. (ZPA-14)	223
Carpenter, R. (TOB-04)	165	Chareyron, B. (GOA-05)	75
Carpentieri, M. (NOB-02)	115	Chata'ni, K. (POA-08)	127
Carpentieri, M. (NOB-08)	116	Chatterjee, R. (COC-08)	36
Carpentieri, M. (POA-05)	127	Chau, K. (IPA-02)	87
Carpentieri, M. (PPD-03)	137	Chau, K. (IPB-03)	89
Carrière, M. (EOB-01)	63	Chau, K. (LPA-03)	103
Carter-Gartside, J. (SOE-03)	157	Chau, K. (MOA-13)	107
Carter, A. (POC-07)	131	Chau, K. (MOA-17)	107
Caruana, A. (ZPA-11)	222	Chauhan, H.C. (COB-05)	33
Carva, K. (BOD-07)	27	Chauleau, J. (ROB-05)	148
Casanova, F. (AOC-10)	14	Chauleau, J. (SOF-04)	159
Casanova, F. (COE-02)	39	Chaurasiya, A. (AOB-05)	11
Casanova, F. (COE-03)	39	Chaurasiya, A. (DOA-10)	47
Casanova, F. (DOC-03)	50	Chaurasiya, A. (SOA-06)	150
Casas, B. (COC-09)	36	Che, P. (SOD-03)	155
Castel, V.M. (ROA-07)	147	Che, S. (VOB-02)	181
Castellanos- Reyes, J.Á. (YOB-08)	217	Cheenkundil, R. (SPA-06)	162
Castoldi, A. (SOF-05)	160	Chekhov, A. (DOA-11)	47
Cavassila, S. (EOA-08)	62	Chelvane, A. (QOA-12)	139
Cavoit, C. (POB-05)	129	Chelvane, A. (QPA-01)	142
Cecil, T.W. (SB-03)	3	Chen, A. (COD-03)	37
Cecil, T.W. (SOD-07)	156	Chen, B. (POA-14)	128
Celebi, D. (WOC-14)	194	Chen, B. (XPC-04)	211
Čelko, L. (ROA-03)	146	Chen, C. (COB-12)	34
Cen, Y. (NOB-01)	115	Chen, C. (COC-01)	35
Cervera-Gabalda, L. (ZOA-09)	220	Chen, C. (JOA-14)	92
Cespedes, O. (BOB-11)	23	Chen, C. (POB-06)	129
Cespedes, O. (OOB-15)	123	Chen, C. (TPC-01)	173
Cespedes, O. (XOA-09)	203	Chen, C. (TPC-07)	174
Cespedes, O. (ZPA-11)	222	Chen, C. (XPB-08)	210
Cestarollo, L. (QOB-05)*	140	Chen, D. (PPC-04)	135
Ceylan, D. (LOA-01)	101	Chen, G. (JPB-17)	96
Cha, H. (WOA-11)	189	Chen, G. (ZOA-13)	221
Cha, K. (GPB-08)	78	Chen, H. (BOB-03)	22
Cha, K. (JPB-07)	95	Chen, H. (IOB-06)	86
Cha, S. (QOA-11)	139	Chen, H. (WPA-01)	196
		Chen, I. (ZOA-11)	220

*Best student presentation award finalist

Chen, J. (APA-01)	14	Cheng, X. (YOB-09)	218
Chen, J. (CPB-11)	45	Chérif, S. (COA-04)	31
Chen, J. (DOB-07)	48	Chernov, A. (NOA-03)	113
Chen, J. (DOD-05)	52	Cheung, S. (TOC-04)	168
Chen, J. (DPB-03)	56	Chevalier, A. (PPB-04)	133
Chen, J. (DPC-04)	59	Chevalier, A. (WOD-02)	194
Chen, J. (FPA-09)	73	Chevalier, A. (WPC-04)	200
Chen, J. (KPA-20)	100	Cheyneis, F. (DOB-11)	49
Chen, J. (MOA-12)	107	Chi, B. (RPA-01)	148
Chen, J. (MOA-16)	107	Chi, Z. (COE-02)	39
Chen, J. (OOB-01)	121	Chi, Z. (COE-03)	39
Chen, J. (ZOA-13)	221	Chiba, D. (BPA-09)	29
Chen, J. (ZOA-14)	221	Chiba, M. (PPB-03)	133
Chen, K. (DOA-04)	46	Chiba, M. (QPB-07)	145
Chen, K. (MOA-07)	106	Chiba, T. (DPC-05)	59
Chen, L. (FPA-07)	73	Chiba, T. (UOB-01)	176
Chen, M. (HPA-15)	83	Chien, C. (DOA-06)	47
Chen, M. (HPA-18)	83	Chikaki, S. (EOB-08)	64
Chen, M. (OOB-11)	122	Chikaki, S. (EOB-09)	64
Chen, P. (ROB-02)	148	Chirac, T. (ROB-05)	148
Chen, R. (APC-02)	19	Chiriac, H. (EPA-07)	66
Chen, R. (COA-03)	31	Chiriac, H. (VOA-08)	180
Chen, R. (COB-11)	34	Chiriac, H. (VPA-07)	184
Chen, R. (CPA-15)	43	Cho, H. (FPA-17)	74
Chen, R. (WOC-10)	193	Cho, H. (GPB-01)	77
Chen, R. (YPA-08)	219	Choe, S. (APB-14)	18
Chen, S. (APB-12)	18	Choe, S. (DPA-17)	56
Chen, S. (BOC-08)	25	Choe, S. (DPB-01)	56
Chen, S. (BOD-06)	27	Choe, S. (NOB-14)	117
Chen, S. (EOB-14)	65	Choe, S. (TOB-14)	167
Chen, S. (ROA-04)	146	Choe, S. (TPA-03)	170
Chen, T. (BOA-02)	20	Choi-Yim, H. (WOA-11)	189
Chen, T. (BOA-04)	20	Choi, C. (WOB-09)	191
Chen, W. (DOB-09)	49	Choi, G. (APB-07)	17
Chen, W. (IOA-11)	85	Choi, G. (APB-10)	18
Chen, W. (IPB-04)	89	Choi, G. (BPA-01)	28
Chen, X. (BOA-05)	21	Choi, G. (FPA-02)	72
Chen, X. (DOA-01)	46	Choi, H. (WOA-11)	189
Chen, X. (FOA-10)	71	Choi, J. (FPA-03)	72
Chen, X. (JPA-16)	94	Choi, J. (FPA-17)	74
Chen, X. (YOA-03)	215	Choi, J. (GPA-18)	77
Chen, Y. (GPA-14)	76	Choi, J. (GPB-01)	77
Chen, Y. (GPA-15)	77	Choi, J. (GPB-05)	78
Chen, Y. (JPB-17)	96	Choi, J. (HPA-05)	82
Chen, Y. (LPA-04)	103	Choi, J. (HPA-11)	82
Chen, Y. (SD-02)	5	Choi, J. (HPA-12)	83
Chen, Y. (TPC-06)	174	Choi, J. (LPA-08)	104
Chen, Y. (UOA-07)	175	Choi, J. (PPB-10)	134
Chen, Y. (VPA-14)	185	Choi, P. (WPA-12)	197
Chen, Y. (XOC-08)	206	Choi, W. (AOC-10)	14
Chen, Y. (XOD-08)	208	Choi, W. (APC-04)	19
Chen, Y. (XPC-04)	211	Choi, W. (DPC-11)	60
Chen, Z. (DPA-10)	55	Choi, Y. (APB-10)	18
Chen, Z. (JPB-06)	95	Choi, Y. (YOA-02)	214
Chen, Z. (KOA-04)	97	Choi, Y. (ZOA-10)	220
Chen, Z. (XOA-11)	203	Choi, Y. (ZOA-12)	221
Chenattukuzhiyil, S. (COE-02)	39	Chong, Y. (LOA-02)	101
Cheng, C. (DOA-04)	46	Chopdekar, R.V. (YOA-03)	215
Cheng, C. (OOB-11)	122	Chopin, C. (NOB-05)	115
Cheng, E. (EPB-10)	69	Chopin, C. (SOB-08)	152
Cheng, G. (SD-02)	5	Chopin, C. (TOA-08)	164
Cheng, H. (AOA-07)	10	Chou, C. (BOA-03)	20
Cheng, H. (COB-11)	34	Choudhary, R.J. (UOA-03)	175
Cheng, H. (CPA-07)	42	Choueikani, F. (COE-08)	40
Cheng, H. (XPB-07)	210	Chow, Y. (DPB-09)	57
Cheng, K. (POA-04)	126	Chow, Y. (XPA-05)	213
Cheng, K. (PPA-02)	132	Chowdhury, B. (PPA-01)	132
Cheng, K. (PPB-13)	134	Chowdhury, M. (SC-04)	4
Cheng, L. (KOA-04)	97	Chowdhury, N. (DPC-10)	59
Cheng, M. (HPA-19)	83	Chowdhury, S. (SD-04)	5
Cheng, P. (QPA-14)	143	Chshiev, M. (COA-04)	31
Cheng, Q. (OOA-07)	120	Chshiev, M. (COC-07)	36
Cheng, R. (BOC-05)	25	Chshiev, M. (COC-11)	37
Cheng, S. (MPB-04)	112	Chshiev, M. (COD-09)	38
Cheng, W. (POB-11)	130	Chshiev, M. (COE-08)	40
Cheng, W. (ZPA-07)	222	Chu, Y. (SOB-07)	152
Cheng, X. (COC-10)	36	Chuang, P. (VPA-14)	185

*Best student presentation award finalist

Das, s. (AOB-10)	12	Desikan, A. (FOA-13)	71
Das, S. (BOB-03)	22	Desrousseaux, S. (GOA-05)	75
Das, S. (TPB-10)	172	Deussner, S. (TOC-06)	169
Dasari, H. (WOA-04)	188	Devapriya, M. (TOB-05)	166
Dash, S.P. (COC-04)	35	Devillers, T. (WOC-13)	194
Dash, S.P. (DOC-09)	50	Dewan, S. (AOB-10)	12
Dash, S.P. (DPA-04)	54	Dhagat, P. (QOA-01)	138
David, C. (SOF-05)	160	Dhankhar, M. (SOD-02)	155
Davidkova, K. (SOC-04)	153	Dhesi, S. (XOB-01)	203
Davidkova, K. (SOD-02)	155	Dhillon, S. (COD-09)	38
Davidkova, K. (SOD-08)	156	Di, C. (FPA-01)	72
Davidkova, K. (SPA-11)	163	Di, C. (JPA-05)	93
Davidková, K. (SPA-17)	163	Di, C. (JPB-08)	95
Davila, N. (DPC-01)	58	Diab, H. (IOB-12)	87
Davis-Fowell, E.V. (WOD-06)	195	Diao, C. (LPA-16)	104
Davydenko, A. (APC-01)	18	Diao, C. (MOB-09)	109
Dayal, V. (QPA-04)	142	Dias, A. (XPB-06)	210
Dayal, V. (UOA-03)	175	Diaz, E. (BOD-01)	26
De Biasi, E. (EOA-05)	61	Diaz, E. (SOA-04)	150
De Boeck, J. (DPA-03)	54	Díaz, J. (TOB-13)	167
De Boeck, J. (QOA-02)	138	Dieny, B. (DPC-06)	59
De Bruyn, B. (FOA-13)	71	Dieny, B. (EOB-01)	63
de Cos Elices, D. (EOA-01)	61	Dieny, B. (NOB-04)	115
De Gaetano, D. (FOA-10)	71	Dieny, B. (OOB-10)	122
de Groot, F. (SOF-05)	160	Dieny, B. (OPB-05)	125
de Juan, F. (COE-02)	39	Dimier, T. (MOA-01)	105
de la Barrière, O. (SF-02)	7	Dimier, T. (MOA-06)	106
de la Barrière, O. (SF-03)	7	Dimoulas, A. (COE-05)	39
de la Figuera, J. (UOA-05)	175	Ding, H. (LOA-03)	101
de la Fuente		Ding, H. (LPA-16)	104
Rodríguez, M. (XOD-05)	208	Ding, H. (MOB-09)	109
de Loubens, G. (SOD-13)	157	Ding, J. (BOC-10)	25
De Micheli, G. (NOA-05)	114	Ding, S. (BOB-05)	23
de Moraes, I.G. (COD-09)	38	Ding, S. (DOB-06)	48
de Moraes, I.G. (COE-08)	40	Ding, S. (GPA-13)	76
de Olazarra, A. (EOB-06)	64	Ding, Y. (WOC-10)	193
de Oliveira, T. (SOD-01)	155	Ding, Y. (WPB-13)	199
De Rango, P. (WOB-11)	191	Dion, T.C. (SOE-03)	157
de Riz, A. (SG-03)	8	Dirba, I. (EOA-02)	61
de Rojas, J. (SOE-02)	157	Dirba, I. (EOA-07)	62
de Vicente, J. (WOD-15)	196	Disch, S. (SC-03)	4
de Wergifosse, S. (NOB-05)	115	Divan, R. (SB-03)	3
de Wergifosse, S. (SOB-08)	152	Divan, R. (SOD-07)	156
de Wergifosse, S. (TOA-08)	164	Djouadi, Y. (IPB-11)	90
de-la-Peña, S. (DOC-11)	51	Dobák, S. (VOB-08)	182
De-Long, L. (YOA-03)	215	Dobák, S. (VOB-11)	182
De, A. (SOF-07)	160	Dobrovolskiy, O. (SOD-08)	156
De, A. (TOB-06)	166	Dobrovolskiy, O. (TOB-02)	165
Deac, A. (SPA-09)	162	Dohi, T. (AOB-01)	11
Deacon, R. (SB-04)	3	Dohi, T. (COB-03)	33
DeBoer, M.P. (SF-06)	7	Dohi, T. (COB-13)	34
Deger, C. (AOC-09)	14	Doi, M. (WPB-03)	198
Deinert, J. (SOD-01)	155	Doi, M. (WPB-08)	199
Deiter, C. (SOF-05)	160	Doi, M. (WPC-09)	201
Dekadjevi, D.T. (ROA-07)	147	Doi, M. (WPC-14)	201
Del Giacco, A. (SG-05)	8	Doi, M. (XPA-01)	212
del-Pozo-Bueno, D. (XOD-01)	207	Dolan, E. (COE-03)	39
Delette, G. (GOA-05)	75	Domenjoud, M. (QOB-09)	141
Delhi Babu, P. (WOB-01)	190	Dong, C. (WPB-13)	199
Deman, A. (EOA-08)	62	Dong, J. (BOA-06)	21
Demidov, V.E. (SOD-13)	157	Dong, J. (CPB-07)	45
Demir, Y. (JOA-05)	91	Dong, T. (LPA-15)	104
Demir, Y. (POB-10)	129	Dong, T. (MOB-10)	109
Demokritov, S. (SOD-13)	157	Dong, Z. (GPA-17)	77
Dempsey, N. (WOC-13)	194	Dong, Z. (GPB-10)	79
Dempsey, N. (XPB-06)	210	Dong, Z. (MPA-13)	111
Deng, L. (CPB-04)	44	Donges, A. (SOF-06)	160
Deng, L. (QOB-12)	141	Donnelly, C. (NOA-01)	113
Deng, S. (JPA-14)	94	Donnelly, C. (TOC-07)	169
Dengina, E. (QOA-06)	138	Döring, F. (SOF-05)	160
Dengina, E. (WOA-02)	188	Dörr, F. (AOC-09)	14
Denneulin, T. (AOB-09)	12	dos Santos Dias, M. (SOE-08)	158
Denneulin, T. (BOD-03)	26	dos Santos, F.J. (SOE-08)	158
Denneulin, T. (COA-02)	31	Dosenovic, D. (COC-11)	37
Denneulin, T. (COE-09)	40	Dosenovic, D. (COD-09)	38
Descamps, L. (EOA-08)	62	Dosenovic, D. (COE-08)	40
Deshpande, V.V. (COE-01)	39	Dou, C. (APA-01)	14

*Best student presentation award finalist

Dou, C. (CPB-11).....	45	Eisebitt, S. (SOF-04).....	159
Dou, C. (DPC-04).....	59	Eizadi Sharifabad, M. (EOA-03)....	61
Dou, R. (MPA-11).....	111	El Kanj, A. (SOE-12).....	159
Dou, R. (MPA-14).....	111	El-Atab, N. (NPA-09).....	118
Downey, B. (QOA-01).....	138	El-Ghazaly, A. (QOB-05).....	140
Dozono, H. (POA-14).....	128	El-Melegy, T. (QPA-05).....	142
Drossel, W. (WOB-02).....	190	Elbidweihy, H. (ZPA-14).....	223
Drucker, N.C. (SA-02).....	2	Elder, K.R. (COB-02).....	33
Du, A. (COA-12).....	32	Elhanoty, M.F. (SOF-05).....	160
Du, A. (CPA-07).....	42	Elizabeth, S. (TPB-10).....	172
Du, A. (OOB-07).....	122	Elm, M. (XOC-09).....	206
Du, A. (OPB-02).....	125	Elyasi, M. (DOA-07).....	47
Du, A. (POA-01).....	126	Elyasi, M. (DOB-07).....	48
Du, H. (CPA-07).....	42	Elyasi, M. (SB-01).....	3
Du, H. (JPA-04).....	93	Elyasi, M. (TOB-17).....	168
Du, J. (BOD-04).....	27	Emdi, G. (DPA-01).....	53
Du, J. (BPA-06).....	28	Emori, S. (DOC-05).....	50
Du, J. (DOE-05).....	53	Endo, A. (KPA-10).....	99
Du, J. (DPA-10).....	55	Endo, A. (KPA-12).....	99
Du, J. (XOA-03).....	202	Endo, A. (KPA-16).....	100
Du, Y. (BOB-13).....	24	Endo, A. (MPB-01).....	112
Du, Y. (HPA-10).....	82	Endo, R. (HPA-01).....	81
Du, Y. (IPA-04).....	87	Endo, Y. (MPA-04).....	110
Du, Y. (JPA-10).....	93	Endo, Y. (PPB-11).....	134
Du, Z. (POB-07).....	129	Endo, Y. (QPB-10).....	145
Duan, J. (TOC-02).....	168	Endo, Y. (SPA-04).....	161
Dubreuil, M. (ROA-07).....	147	Endo, Y. (TPB-04).....	172
Dubs, C. (SOC-04).....	153	Endo, Y. (TPC-08).....	174
Dubs, C. (SOD-08).....	156	Endo, Y. (VOB-05).....	181
Dubs, C. (SPA-11).....	163	Endo, Y. (VOB-14).....	183
Dubs, C. (SPA-17).....	163	Endo, Y. (VPB-03).....	186
Ducevic, A. (SOB-02).....	151	Endo, Y. (VPB-08).....	186
Ducevic, A. (TOC-01).....	168	Endo, Y. (VPB-14).....	187
Ducharne, B. (KPA-22).....	100	Endo, Y. (XPC-05).....	211
Ducharne, B. (MOB-02).....	108	Endoh, T. (AOC-04).....	13
Ducharne, B. (MOB-03).....	108	Ener, S. (WOB-08).....	191
Ducharne, B. (MOB-04).....	108	Ener, S. (WOD-03).....	194
Ducharne, B. (ZOA-03).....	219	Ener, S. (WOD-08).....	195
Ducruet, C. (POB-05).....	129	Ener, S. (WOD-09).....	195
Duine, R.A. (DOC-10).....	51	Eng, L. (COC-10).....	36
Duine, R.A. (SOE-09).....	158	Engel, R.Y. (SOF-05).....	160
Dunin-Borkowski, R.E. (AOB-09)...	12	Enokido, Y. (WOA-06).....	189
Dunin-Borkowski, R.E. (BOD-03)...	26	Enokizono, M. (IOA-04).....	84
Dunin-Borkowski, R.E. (COA-02)...	31	Enokizono, M. (IPA-01).....	87
Dunin-Borkowski, R.E. (DOD-06)...	52	Enokizono, M. (VPA-13).....	185
Dupuis, V. (XOC-11).....	206	Enokizono, M. (YOA-11).....	216
Dupuis, V. (XPB-06).....	210	Erdinger, F. (SOF-05).....	160
Durner, C.A. (OOB-09).....	122	Eriksson, F. (XPA-07).....	213
Durner, C.A. (XOA-04).....	202	Eriksson, O. (SOF-05).....	160
Dutta, R. (SOC-11).....	154	Eriksson, S. (LOA-06).....	101
Dutta, T. (CPA-14).....	43	Eriksson, S. (LPA-19).....	105
Dutttagupta, S. (CPB-09).....	45	Eriksson, S. (WOD-10).....	195
Dutttagupta, S. (DPA-05).....	54	Erkovan, M. (AOC-09).....	14
Dyachenko, A. (ZPA-05).....	222	Ernoul, M. (TOB-09).....	166
Dzubinska, A. (QPA-06).....	142	Eroglu, A. (PPA-01).....	132
Dzubinska, A. (QPA-11).....	143	Eschenlohr, A. (SOF-01).....	159

- E -

Ebata, T. (VOB-09).....	182	Escoda-Torroella, M. (SC-01).....	4
Ebata, T. (VPB-06).....	186	Espanet, C. (SE-04).....	6
Ebels, U. (BOB-03).....	22	Estradé, S. (XOD-01).....	207
Ebels, U. (NOB-04).....	115	Estrader, M. (XOD-01).....	207
Ebels, U. (NOB-09).....	116	Evans, R.F. (COA-07).....	31
Ebels, U. (PPA-03).....	132	Evans, R.F. (CPB-03).....	44
Echevarría-Bonet, C. (XOD-05)...	208	Evans, R.F. (NPA-04).....	118
Eda, N. (EOB-10).....	64	Evans, R.F. (SOB-05).....	151
Edmonds, K. (XOB-01).....	203	Evans, R.F. (WOD-01).....	194
Edström, A. (YOB-08).....	217	Evans, R.F. (WPA-14).....	198
Egawa, G. (ROB-03).....	148	Evans, R.F. (YOB-07).....	217
Egawa, G. (ROB-04).....	148	Everaert, K. (ZOA-02).....	219
Egbu, J. (SF-06).....	7	Evers, M. (SOF-06).....	160
Eggert, B. (QOA-05).....	138	Everschor-Sitte, K. (COA-09)....	31
Eguchi, T. (DPB-04).....	56	Exl, L. (SOB-03).....	151
Ehresmann, A. (XOA-05).....	202		
Eimer, S. (AOA-07).....	10		
Eimer, S. (XPB-07).....	210		

- F -

Fabbris, G. (SA-02).....	2
Fáberová, M. (VOB-11).....	182

*Best student presentation award finalist

Faehler, S. (TOC-06)	169	Figueiredo-Prestes, N. (COE-05).	39
Fåk, B. (XOD-05)	208	Figueroa, A.I. (COE-06)	40
Fakhredine, A. (XOB-10)	205	Filatova, A. (EOA-07)	62
Falub, C. (VPA-03)	183	Filianina, M. (BOB-05)	23
Fan, D. (HPA-08)	82	Fillion, C. (COA-04)	31
Fan, D. (JPB-13)	96	Filnov, S. (BOB-03)	22
Fan, D. (JPB-15)	96	Filnov, S. (BPA-14)	29
Fan, D. (LPA-07)	103	Finizio, S. (TOC-07)	169
Fan, H. (GPA-08)	76	Finizio, S. (YOA-04)	215
Fan, R. (COB-08)	34	Finocchio, G. (BOB-05)	23
Fan, X. (CPB-08)	45	Finocchio, G. (COA-01)	30
Fang, C. (DPB-13)	57	Finocchio, G. (CPA-14)	43
Fang, L. (EPA-12)	67	Finocchio, G. (NOB-02)	115
Fang, L. (ZPA-12)	223	Finocchio, G. (NOB-08)	116
Fang, S. (PPC-14)	136	Finocchio, G. (POA-05)	127
Fang, Y. (UOA-02)	174	Finocchio, G. (PPD-03)	137
Fang, Y. (WOA-13)	189	Fiorillo, F. (SF-02)	7
Fang, Y. (WOC-07)	193	Fiorillo, F. (SF-03)	7
Fangohr, H. (SOF-05)	160	Fiorillo, F. (VOB-12)	182
Farcis, L. (NOB-04)	115	Fiorini, C. (SOF-05)	160
Fariborzi, H. (NPA-09)	118	Fischbacher, J. (SA-06)	2
Farkhani, H. (NOB-03)	115	Fischbacher, J. (SOB-03)	151
Farkhani, H. (TPA-09)	171	Fischbacher, J. (TOC-11)	169
Farle, M. (QPA-05)	142	Fischbacher, J. (TOC-12)	170
Farmer, B. (YOA-03)	215	Fischbacher, J. (WOA-03)	188
Farooq, H. (IOA-10)	85	Fischer, J. (BPA-13)	29
Fassatoui, A. (COA-04)	31	Fischer, J. (COA-04)	31
Fassbender, J. (SOD-01)	155	Fischer, J. (POB-05)	129
Fassbender, J. (SOE-11)	158	Fischer, P. (SOF-05)	160
Fatima, A. (IOB-05)	86	Fitzgerald, S. (BPA-17)	30
Favaro, D. (DOE-02)	53	Flajšman, L. (DOE-04)	53
Favaro, D. (TOB-04)	165	Flajšman, L. (DOE-06)	53
Fedel, S. (COD-05)	38	Flajšman, L. (SOF-09)	161
Felser, C. (SA-03)	2	Flajšman, L. (TPB-12)	173
Felser, C. (YOB-06)	217	Flament, C. (WOB-11)	191
Feng, H. (WPA-04)	197	Flatau, A. (ZOA-10)	220
Feng, H. (WPB-05)	198	Flauger, P. (BOC-09)	25
Feng, J. (VOB-02)	181	Foerster, M. (BOB-05)	23
Feng, K. (GPA-15)	77	Foerster, M. (BOC-06)	25
Feng, K. (GPA-17)	77	Foerster, M. (NOA-01)	113
Feng, R. (NPA-11)	118	Foerster, M. (UOA-05)	175
Feng, Y. (CPA-14)	43	Foerster, M. (XOD-14)	209
Feng, Y. (JPA-11)	93	Foggiatto, A.L. (YOA-10)	216
Feng, Y. (LOA-09)	102	Foggiatto, A.L. (YPA-04)	218
Fernández Barquín, L. (EOA-01)	61	Fong, X. (NOB-01)	115
Fernández		Forghani, B. (FOA-05)	70
Barquín, L. (XOD-05)	208	Forlin, E. (WOD-08)	195
Fernandez		Förster, J. (SOC-10)	154
Gonzalez, C. (NOA-01)	113	Fossberg, O. (XOA-10)	203
Fernandez		Fraile Rodríguez, A. (SC-01)	4
Gonzalez, C. (XOD-14)	209	Franchina Vergel, N. (DOE-02)	53
Fernandez		Franke, K.J. (QOB-07)	140
Gubieda, M. (EOA-01)	61	Franke, L. (DOC-13)	51
Fernandez		Franke, L. (EPB-01)	67
Gubieda, M. (EOA-10)	62	Freimuth, F. (DPC-11)	60
Fernandez		Freitas, P. (POC-05)	131
Gubieda, M. (SC-06)	5	Frömter, R. (COB-03)	33
Fernández-		Frömter, R. (COB-13)	34
Calzado, A. (WOD-03)	194	Frömter, R. (DPC-11)	60
Fernandez, L. (TOB-16)	167	Frost, W.J. (OOB-12)	122
Ferrara, E. (SF-02)	7	Frottier, T. (APC-12)	20
Ferrara, E. (SF-03)	7	Frottier, T. (CPB-13)	45
Ferrara, E. (VOB-12)	182	Frottier, T. (DOB-11)	49
Ferreira, R. (NOB-03)	115	Fruchart, O. (OOB-10)	122
Ferreira, R. (NOB-05)	115	Fruchart, O. (OPB-05)	125
Ferreira, R. (PPA-03)	132	Fu, D. (IPB-06)	89
Ferreira, R. (SG-02)	8	Fu, D. (KPA-14)	99
Ferreira, R. (SG-03)	8	Fu, E. (WPA-10)	197
Ferreira, R. (TOB-08)	166	Fu, J. (NOB-13)	117
Ferreira, R. (TPA-08)	171	Fu, R. (LPA-15)	104
Ferreira, R. (TPA-09)	171	Fu, T. (XPA-05)	213
Fert, A. (AOB-09)	12	Fu, W. (HPA-17)	83
Fert, A. (AOC-11)	14	Fuhrmann, F. (BOB-03)	22
Fert, A. (COA-02)	31	Fuhrmann, F. (BOB-05)	23
Fessant, A. (ROA-07)	147	Fuhrmann, F. (BPA-14)	29
Figueiredo-Prestes, N. (COA-02)	31	Fujieda, S. (QPB-06)	144
Figueiredo-Prestes, N. (COD-04)	37	Fujieda, S. (QPB-09)	145

*Best student presentation award finalist

- G -

Fujieda, S. (YPA-04)	218	G. Suresh, K. (TOC-10)	169
Fujii, S. (SOA-09)	150	G. Suresh, K. (UOB-05)	176
Fujii, S. (YOB-02)	216	Gabay, A. (WPB-06)	199
Fujii, Y. (TOB-07)	166	Gai, L. (EOB-04)	64
Fujikawa, S. (APB-09)	17	Galceran, R. (COE-04)	39
Fujimoto, C. (WOC-06)	193	Galindez Ruales, E. (BOB-03)	22
Fujimoto, K. (PPC-13)	136	Galindez Ruales, E. (BPA-14)	29
Fujimoto, M. (EPB-02)	68	Gallais, C. (ZOA-03)	219
Fujimoto, M. (EPB-03)	68	Gallardo, R. (SOD-01)	155
Fujimoto, M. (YPA-03)	218	Gallardo, R. (SPA-09)	162
Fujimoto, M. (YPA-05)	218	Gama Monteiro, M. (OOB-06)	121
Fujioka, M. (APA-05)	15	Gama Monteiro, M. (TOB-04)	165
Fujisaki, K. (MOA-05)	106	Gambardella, P. (COD-05)	38
Fujisaki, K. (POA-14)	128	Gambardella, P. (DOB-06)	48
Fujita, N. (PPB-11)	134	Gambardella, P. (OOB-13)	122
Fujita, T. (QOB-10)	141	Gan, Y. (IOB-11)	87
Fujita, T. (XOD-02)	207	Gandarias, L. (EOA-01)	61
Fujita, Y. (APC-10)	19	Gandarias, L. (EOA-10)	62
Fujita, Y. (XPC-01)	211	Gandia, D. (EOA-01)	61
Fujiwara, K. (AOA-11)	10	Gandia, D. (EOA-10)	62
Fujiwara, K. (BOB-13)	24	Gandia, D. (SC-06)	5
Fujiwara, K. (DOB-08)	49	Ganesan, R. (TPB-10)	172
Fujiwara, K. (MOB-01)	108	Gao, D. (CPB-04)	44
Fujiwara, S. (BOB-12)	24	Gao, G. (MPB-11)	113
Fujiwara, T. (WOC-06)	193	Gao, J. (FOA-01)	69
Fujiwara, T. (WPB-07)	199	Gao, J. (GPB-11)	79
Fukami, S. (BOA-03)	20	Gao, J. (IPB-09)	90
Fukami, S. (CPB-09)	45	Gao, J. (IPB-12)	90
Fukami, S. (SB-01)	3	Gao, J. (JOA-06)	91
Fukami, T. (LOA-04)	101	Gao, J. (JPA-11)	93
Fukasawa, T. (CPA-16)	43	Gao, J. (QPA-07)	143
Fukuda, I. (WPA-15)	198	Gao, S. (FOA-05)	70
Fukuda, S. (FOA-15)	71	Gao, X. (WPA-03)	196
Fukuda, T. (YPA-04)	218	Gao, X. (WPA-08)	197
Fukuma, Y. (DPA-09)	55	Gao, Y. (FOA-05)	70
Fukuma, Y. (NPA-11)	118	Gao, Y. (LOA-09)	102
Fukumizu, H. (DPA-02)	54	Gao, Y. (POA-14)	128
Fukunaga, H. (VPB-05)	186	Gao, Y. (PPC-11)	136
Fukunaga, H. (WPA-09)	197	Gao, Y. (PPC-13)	136
Fukunaga, H. (WPA-13)	197	Gao, Y. (QPA-07)	143
Fukunaga, H. (WPA-15)	198	Gao, Y. (TPC-04)	173
Fukunaga, H. (WPB-01)	198	Gao, Z. (LPA-15)	104
Fukunaga, H. (WPC-06)	200	Garaio, E. (ZOA-09)	220
Fukunaga, H. (WPC-08)	200	García Prieto, A. (EOA-10)	62
Fukunaga, H. (XPA-11)	214	García Sánchez, F. (AOC-11)	14
Fukunaga, H. (XPB-12)	210	García-Arribas, A. (EOA-01)	61
Fukuoka, M. (MOA-14)	107	García-Arribas, A. (PPD-02)	137
Fukuoka, M. (MOB-06)	108	García-Gómez, A. (VPA-08)	184
Fukushima, A. (TOB-09)	166	García-Gómez, A. (VPA-12)	185
Fukushima, D. (WPC-06)	200	García-Prieto, A. (EOA-01)	61
Fukushima, D. (WPC-08)	200	García-Prieto, A. (SC-06)	5
Fukushima, T. (SA-06)	2	García, J. (EOA-08)	62
Fukushima, T. (UOB-10)	177	García, J.H. (COC-07)	36
Fulara, H. (DOA-10)	47	García, V. (ROB-05)	148
Fulara, H. (DPC-02)	58	García, V. (SOD-03)	155
Fulara, H. (POA-02)	126	Garello, K. (APC-12)	20
Fullerton, E. (DOA-03)	46	Garello, K. (OOB-14)	122
Fumagalli, P. (AOC-09)	14	Garesci, F. (PPD-03)	137
Funai, K. (OPA-09)	124	Gargiani, P. (BOB-11)	23
Funato, T. (DPC-12)	60	Gargiani, P. (OOB-15)	123
Furui, M. (KPA-10)	99	Gas, K. (UOB-02)	176
Furukawa, M. (OOA-08)	120	Gas, K. (UPA-07)	178
Furukawa, W. (UOA-09)	175	Gaudin, G. (COA-04)	31
Fushimi, M. (EOB-08)	64	Gautam, R. (VOA-07)	180
Fushimi, M. (EOB-09)	64	Gaviko, V. (QPA-15)	143
Fushimi, M. (EOB-13)	65	Gavilán, H. (SC-02)	4
Fusil, S. (ROB-05)	148	Geilen, M. (QOA-02)	138
Fusil, S. (SOD-03)	155	George, J. (AOB-09)	12
Futagawa, M. (XPC-06)	211	George, J. (APB-06)	17
Futagawa, M. (XPC-12)	212	George, J. (COD-04)	37
Futagawa, N. (YPA-03)	218	George, J. (COD-09)	38
Futagawa, N. (YPA-05)	218	George, J. (COE-05)	39
Futamoto, M. (VOA-06)	180	Georgiou, V. (NOB-11)	116
Futamoto, M. (VPB-04)	186	Geprägs, S. (BPA-13)	29
Futamoto, M. (VPB-10)	187	Geprägs, S. (DOC-11)	51
Fuzer, J. (VOB-08)	182	Gerasimova, N. (SOF-05)	160
Fuzer, J. (VOB-11)	182		

*Best student presentation award finalist

Gerlich, L. (XOA-04)	202	Goto, T. (SPA-01)	161
Geuzaine, C. (SE-03)	6	Gotoh, Y. (PPC-03)	135
Ghibaudo, O. (ZOA-03)	219	Gotoh, Y. (PPC-06)	135
Ghorai, S. (LOA-06)	101	Gotoh, Y. (PPC-07)	135
Ghorai, S. (WOD-10)	195	Gotoh, Y. (PPC-11)	136
Ghorbanighoshchi, S. (WOC-14)	194	Gotoh, Y. (PPC-12)	136
Gieniusz, R. (XOB-10)	205	Gotoh, Y. (PPC-13)	136
Gilbert, D. (SD-06)	5	Gotoh, Y. (PPD-09)	137
Gillon, F. (VOB-03)	181	Gottschall, T. (QOA-07)	139
Giordano, A. (CPA-14)	43	Gottschall, T. (QOA-09)	139
Giordano, A. (POA-05)	127	Gottschall, T. (QPA-12)	143
Giraud, A. (IOA-08)	85	Gouder, T. (XPA-06)	213
Gkouzia, G. (XOA-07)	202	Goya, G.F. (EOA-05)	61
Glessner, M. (FOA-03)	70	Graczyk, P. (TOA-09)	164
Gliga, S. (TOB-01)	165	Gradhand, M. (COE-09)	40
Glowinski, H. (XPB-11)	210	Graeser, M. (EOA-06)	62
Go, D. (APB-10)	18	Grammer, M. (DOC-11)	51
Go, D. (APC-02)	19	Granados Miralles, C. (UOA-05)	175
Go, D. (COE-09)	40	Granados, D. (XOD-03)	207
Go, G. (DPA-12)	55	Grånäs, O. (SOF-05)	160
Gobbi, M. (COE-02)	39	Granato, E. (COB-02)	33
Gobbi, M. (COE-03)	39	Granz, S. (OOA-04)	120
Gobbi, M. (DOC-03)	50	Grau, L. (WOB-03)	190
Göbel, B. (COB-10)	34	Greaves, S. (NPA-01)	117
Godel, F. (TOB-03)	165	Greaves, S. (NPA-03)	117
Goennenwein, S. (BOA-09)	21	Greil, J. (SOB-01)	151
Goennenwein, S. (SOF-06)	160	Greil, J. (SOC-12)	154
Goetz, S. (IPA-02)	87	Grenèche, J. (WOD-03)	194
Gohda, Y. (ROA-02)	146	Grenier, S. (WOC-13)	194
Gohda, Y. (ROA-05)	147	Grezes, C. (APC-12)	20
Gokhale, V. (QOA-01)	138	Grezes, C. (CPB-13)	45
Golebiewski, M. (SOE-01)	157	Griffin, D. (EOB-14)	65
Golebiewski, M. (SPA-12)	163	Griffin, E. (SE-01)	6
Golias, E. (BOD-03)	26	Griffo, A. (FOA-10)	71
Golibrzuch, M. (SOC-12)	154	Griggs, W. (COA-03)	31
Gomes, G. (TOB-16)	167	Griggs, W. (CPA-15)	43
Gomes, G. (XOA-08)	202	Grimaldi, A. (NOB-08)	116
Gómez Roca, A. (XOD-01)	207	Grimaldi, A. (POA-05)	127
Gomez-Polo, C. (KPA-04)	98	Groen, I. (AOC-10)	14
Gomez-Polo, C. (ZOA-09)	220	Groen, I. (COE-02)	39
Gomez, G. (YOA-05)	215	Groiss, H. (UPA-07)	178
Gomonay, O. (BOA-09)	21	Grollier, J. (COA-11)	32
Gomonay, O. (BOB-03)	22	Grollier, J. (NOB-04)	115
Gomonay, O. (BOB-05)	23	Grollier, J. (SG-03)	8
Gomonay, O. (BOC-06)	25	Grollier, J. (TOB-03)	165
Gomonay, O. (BPA-14)	29	Grollier, J. (TOB-09)	166
Gomonay, O. (SOE-12)	159	Gross, R. (BPA-13)	29
Gomonay, O. (SOF-03)	159	Gross, R. (DOC-11)	51
Gomonay, O. (XOA-01)	201	Grosz, A. (POC-02)	130
Gomonay, O. (XOB-01)	203	Grubbs, M. (KOA-05)	97
Gonçalves, S.T. (PPB-02)	133	Gruber, R. (CPA-13)	43
Gong, Y. (DPA-10)	55	Gruner, M. (QOA-05)	138
Gong, Z. (MOB-10)	109	Gruner, M. (QOA-09)	139
Gong, Z. (SOB-07)	152	Gruszecki, P. (SOC-09)	153
Gonzales, S. (XOC-11)	206	Gruszecki, P. (SPA-12)	163
Gonzalez Villegas, A. (VPA-08)	184	Gruszecki, P. (TPB-05)	172
Gonzalez Villegas, A. (VPA-12)	185	Grutter, A.J. (COD-01)	37
Gonzalez, J. (VPA-08)	184	Grygoruk, V. (DPC-03)	59
Gonzalez, J. (VPA-12)	185	Grygoruk, V. (SOA-05)	150
Gonzalez, V. (AOB-05)	11	Gu, C. (TPC-03)	173
Gonzalez, V. (DOA-10)	47	Gu, H. (NPA-15)	119
Gonzalez, V. (DPC-02)	58	Gu, M. (PPB-06)	133
Gonzalez, V. (NOB-06)	116	Gu, X. (PPD-05)	137
Gonzalez, V. (SPA-14)	163	Gu, Y. (KPA-20)	100
Goodall, R. (WOD-06)	195	Gu, Y. (MOA-12)	107
Gopalan, R. (WOB-01)	190	Gu, Y. (MOA-16)	107
Gopman, D.B. (OOB-03)	121	Guan, S. (WPA-03)	196
Gorai, A. (POA-07)	127	Guan, S. (WPA-08)	197
Gorchon, J. (BOD-01)	26	Guan, W. (POA-14)	128
Gorchon, J. (SOA-01)	149	Guan, W. (PPC-11)	136
Gorchon, J. (SOA-04)	150	Guan, W. (TPC-04)	173
Gort, R. (SOF-05)	160	Guang, Y. (COA-01)	30
Goto, H. (XPC-12)	212	Guanghai, S. (OOB-16)	123
Goto, M. (CPA-01)	41	Gubieda, A.G. (EOA-10)	62
Goto, S. (XPA-12)	214	Gückelhorn, J. (DOC-11)	51
Goto, T. (QOB-13)	141	Gudín, A. (COD-07)	38
Goto, T. (QPB-01)	144	Gueckstock, O. (DOA-11)	47

*Best student presentation award finalist

Gueneau, C. (COA-04)	31	Hamada, N. (IOA-01)	84
Guerrero, R. (COD-07)	38	Hamada, Y. (DOC-12)	51
Guettinger, J. (DPC-14)	60	Hamadeh, A. (NOB-02)	115
Guillemard, C. (COE-06)	40	Hamara, D.F. (COD-08)	38
Guillet, Q. (COC-11)	37	Hamaya, K. (DOA-08)	47
Guillet, T. (COE-04)	39	Hamaya, K. (ROA-05)	147
Gunduz Akdogan, N. (WOC-14)	194	Hamaya, K. (ROA-06)	147
Gunnink, P.M. (SOE-09)	158	Hamaya, K. (TOB-15)	167
Günzing, D. (XOA-07)	202	Hamaya, K. (XOB-08)	204
Guo, J. (DPB-03)	56	Hameyer, K. (JOA-01)	90
Guo, S. (SOA-03)	150	Hamrle, J. (QOB-02)	140
Guo, T. (BOB-13)	24	Hamzehbahmani, H. (MOB-04)	108
Guo, Y. (BOC-05)	25	Hamzehbahmani, H. (TPC-04)	173
Guo, Y. (FPA-04)	72	Han, C. (JPB-13)	96
Guo, Y. (FPA-08)	73	Han, C. (WPB-06)	199
Guo, Y. (JOA-09)	91	Han, D. (DPC-11)	60
Guo, Y. (JPB-02)	94	Han, D. (NPA-13)	119
Guo, Y. (LOA-08)	102	Han, D. (OPB-09)	125
Guo, Y. (LPA-20)	105	Han, F. (SA-02)	2
Guo, Y. (NOB-13)	117	Han, H. (CPA-03)	41
Guo, Z. (BOD-02)*	26	Han, J. (BOA-03)	20
Guo, Z. (OOB-07)	122	Han, L. (VOB-06)	181
Guo, Z. (PPC-02)	135	Han, Q. (IOB-04)	86
Gupta, M. (NOA-05)	114	Han, Q. (LOA-11)	102
Gupta, M. (UOA-03)	175	Han, R. (APB-04)	17
Gupta, P. (NOB-10)	116	Han, R. (APB-05)	17
Gupta, P. (POA-03)	126	Han, R. (XOB-06)	204
Gupta, S. (DPA-09)	55	Han, T. (RPA-02)	149
Gupta, S. (NPA-11)	118	Han, T. (RPA-06)	149
Gupta, S. (UPA-09)	178	Han, W. (ZPA-10)	222
Gupta, V. (COE-01)	39	Han, X. (AOB-12)	12
Gurieva, T. (OOB-09)	122	Han, X. (AOC-03)	13
Gurieva, T. (XOA-04)	202	Han, X. (APC-07)	19
Gusakova, D. (COA-07)	31	Han, X. (COA-01)	30
Gusenbauer, M. (SA-06)	2	Han, X. (CPA-04)	42
Gusenbauer, M. (SOB-03)	151	Han, X. (RPA-01)	148
Gusenbauer, M. (TOC-12)	170	Hane, Y. (FOA-06)	70
Gutfleisch, O. (EOA-02)	61	Hang, J. (GPA-13)	76
Gutfleisch, O. (EOA-07)	62	Hanke, M. (COE-06)	40
Gutfleisch, O. (QOA-05)	138	Hansen, K. (SOF-05)	160
Gutfleisch, O. (QOA-07)	139	Hao, C. (MPA-11)	111
Gutfleisch, O. (QOA-09)	139	Hao, Z. (WOD-14)	196
Gutfleisch, O. (QPA-05)	142	Hara, T. (APC-08)	19
Gutfleisch, O. (QPA-12)	143	Harmeyer, K. (IOA-04)	84
Gutfleisch, O. (VOB-06)	181	Harmon, S. (VOB-12)	182
Gutfleisch, O. (WOA-10)	189	Harms, J.S. (DOC-10)	51
Gutfleisch, O. (WOB-05)	190	Harms, J.S. (SOE-09)	158
Gutfleisch, O. (WOB-08)	191	Harper, A. (EOA-03)	61
Gutfleisch, O. (WOD-03)	194	Hartzell, C. (ZOA-12)	221
Gutfleisch, O. (WOD-08)	195	Hasan, M. (XOC-05)	205
Gutfleisch, O. (WOD-09)	195	Hasan, M.M. (NPA-06)	118
Gutfleisch, O. (YOA-05)	215	Hasebe, S. (APC-08)	19
Gutiérrez, J. (PPD-02)	137	Hasegawa, A. (VOA-02)	179
Guyader, L. (SOF-05)	160	Hasegawa, T. (WPC-12)	201
Guyon, O. (GOA-05)	75	Hashi, S. (QPB-07)	145
Guzman, R. (POC-11)	131	Hashimoto, K. (CPA-01)	41
Guzowska, U. (XOB-10)	205	Hashimoto, Y. (DOB-01)	48
Gypens, P. (ZOA-04)	220	Hastings, T. (YOA-03)	215

- H -

Habib, M. (OOB-15)	123	Hata, S. (QOB-08)	141
Hadimani, R.L. (EPB-01)	67	Hatanaka, S. (WPB-08)	199
Hadimani, R.L. (EPB-07)	68	Hatate, A. (NOA-10)	114
Hadimani, R.L. (EPB-10)	69	Hatayama, M. (NOA-09)	114
Hadimani, R.L. (QPA-04)	142	Hatoum, M. (IOA-12)	85
Hadjipanayis, G. (WPB-06)	199	Hatoum, M. (LOA-10)	102
Haji Mohammadi, M. (MOA-09)	106	Hatton, P. (COB-01)	32
Hajiri, T. (CPA-16)	43	Hatton, P. (COB-07)	33
Hakam, A. (PPA-03)	132	Hatton, P. (COB-08)	34
Haldar, A. (CPA-17)	43	Hauet, T. (SOD-13)	157
Haldar, A. (DPC-13)	60	Hauf, S. (SOF-05)	160
Haldar, A. (SOE-04)	157	Hayakawa, Y. (APC-09)	19
Haldar, A. (TOB-05)	166	Hayashi, D. (SPA-08)	162
Haldar, A. (TOB-12)	167	Hayashi, K. (APA-05)	15
Haldar, A. (XPA-10)	214	Hayes, M. (VOA-10)	180
Hall, C. (WOD-08)	195	Hayes, M. (XOB-09)	205
		Hazra, B.K. (DPB-13)	57
		He, B. (CPA-04)	42
		He, C. (AOA-09)	10

*Best student presentation award finalist

He, C. (COC-02)	35	Higashino, K. (YPA-05)	218
He, C. (DPA-06)	54	Higashiura, A. (XOC-10)	206
He, C. (DPA-11)	55	Higo, T. (BOA-07)	21
He, C. (JPA-01)	92	Higo, T. (YOB-04)	217
He, J. (IPB-10)	90	Higuchi, K. (WPB-01)	198
He, K. (COC-10)	36	Hillebrands, B. (DOC-13)	51
He, L. (AOA-03)	9	Hillebrands, B. (QOA-02)	138
He, L. (DPA-10)	55	Hillebrands, B. (SOC-02)	152
He, L. (XOA-03)	202	Hillebrands, B. (SOD-05)	155
He, P. (IOB-09)	86	Hillebrands, B. (SOF-07)	160
He, W. (AOC-03)	13	Hiller, K. (MOA-10)	107
He, Y. (BOA-12)	22	Hinata, J. (JOA-04)	91
He, Y. (EOB-04)	64	Hindenberg, M. (OOB-09)	122
He, Z. (HPA-10)	82	Hindenberg, M. (XOA-04)	202
He, Z. (IPA-04)	87	Hioki, T. (BOB-02)	22
He, Z. (IPB-10)	90	Hioki, T. (DOA-07)	47
He, Z. (JPA-10)	93	Hioki, T. (DOA-09)	47
Hebrard, L. (POC-04)	130	Hioki, T. (DOB-01)	48
Heck, M. (APA-11)	16	Hioki, T. (DPA-01)	53
Hecquet, M. (IOA-10)	85	Hioki, T. (SB-01)	3
Hehn, M. (BOD-01)	26	Hioki, T. (SOC-06)	153
Hehn, M. (BOD-02)	26	Hioki, T. (SPA-13)	163
Hehn, M. (NOA-06)	114	Hioki, T. (TOB-17)	168
Hehn, M. (SOA-01)	149	Hippert, F. (CPB-13)	45
Hehn, M. (SOA-04)	150	Hippert, F. (DOB-11)	49
Hehn, M. (SPA-05)	161	Hiraki, T. (VPB-08)	186
Heiliger, C. (XOC-09)	206	Hiramoto, S. (VOA-03)	179
Heinonen, O.G. (TOB-01)	165	Hiramoto, S. (VOA-07)	180
Heins, C. (SOE-11)	158	Hiramoto, S. (VPA-04)	184
Heinz, B. (QOA-02)	138	Hiraoka, Y. (YOA-10)	216
Heinz, B. (SOC-04)	153	Hirata, K. (HOA-01)	80
Heistracher, P.T. (TOC-06)	169	Hirata, K. (IOB-01)	85
Hellwig, O. (SOD-01)	155	Hirata, S. (BPA-18)	30
Hemm, S. (POC-11)	131	Hirayama, Y. (APC-10)	19
Hemmida, M. (YOA-06)	215	Hirayama, Y. (OOB-02)	121
Hendren, W.R. (SOA-02)	150	Hirayama, Y. (WOC-01)	192
Hennecke, M. (SOF-04)	159	Hirayama, Y. (WOC-03)	192
Henrotte, F. (SE-03)	6	Hirayama, Y. (WOC-11)	193
Herbst, A. (SOF-06)	160	Hirka, A. (EOB-05)	64
Herfort, J. (COE-06)	40	Hirobe, D. (BOB-02)	22
Herling, F. (COE-02)	39	Hirobe, D. (CPB-05)	44
Herling, F. (COE-03)	39	Hirohata, A. (CPA-08)	42
Hermosa, G.C. (EPA-12)	67	Hirohata, A. (DOC-08)	50
Hermosa, G.C. (ZPA-12)	223	hiro, K. (YPA-06)	219
Herper, H.C. (WOD-12)	196	Hirst, J. (SOA-07)	150
Herrera Diez, L. (COA-11)	32	Hisada, Y. (RPA-03)	149
Herrera Diez, L. (DOD-06)	52	Hisatomi, R. (BPA-11)	29
Herrera, G. (XOC-11)	206	Hisatomi, R. (QPB-08)	145
Herrgen, P. (BOB-05)	23	Hisatomi, R. (SPA-08)	162
Herrgen, P. (SOF-03)	159	Hisatomi, R. (YOA-01)	214
Herrmann, I.K. (EOA-06)	62	Hlenschi, C. (VOA-08)	180
Hertel, J. (XOA-04)	202	Hlenschi, C. (VPA-07)	184
Hertel, R. (SOE-01)	157	Ho, H. (OOB-02)	121
Hertel, R. (SPA-06)	162	Ho, K. (KOA-06)	97
Heuer, W. (APA-09)	16	Hoez, A. (PPB-04)	133
Heya, A. (FOA-14)	71	Hoez, A. (WOD-02)	194
Heya, A. (FOA-15)	71	Hoez, A. (WPC-04)	200
Heya, A. (IOA-03)	84	Hoffman, A. (SOD-07)	156
Heya, A. (IOA-09)	85	Hoffmann, M. (OOB-13)	122
Heya, A. (KOA-03)	97	Hofmann, C. (MOA-10)	107
Heya, A. (KOA-07)	97	Hofmann, D. (XOC-09)	206
Hicken, R. (OOB-15)	123	Hohlfeld, J. (SOA-01)	149
Hicken, R. (SOA-02)	150	Hohlfeld, J. (SOA-04)	150
Hicken, R. (SOA-03)	150	Hokuto, E. (VOA-02)	179
Hicken, R. (YOA-02)	214	Holländer, R.B. (TOA-06)	164
Hickey, B.J. (BOB-11)	23	Holloway, K. (EPB-07)	68
Hickey, B.J. (CPB-14)	46	Holobradek, J. (SOD-02)	155
Hickey, B.J. (OOB-15)	123	Homma, T. (XOC-05)	205
Hickin, D. (SOF-05)	160	Homma, T. (XPC-09)	212
Hida, E. (WOC-05)	192	Honda, A. (MPA-03)	110
Hierro-Rodriguez, A. (NOA-01)	113	Honda, J. (PPC-15)	136
Hierro-Rodriguez, A. (TOB-13)	167	Honda, S. (BPA-20)	30
Hierro-Rodriguez, A. (TOC-07)	169	Honda, S. (CPA-20)	43
Higashi, K. (WPA-15)	198	Honda, Y. (QOB-11)	141
Higashi, Y. (POC-08)	131	Hong-Siang, C. (KOA-06)	97
Higashiike, S. (FPA-06)	72	Hong, J. (BOD-01)	26
Higashino, K. (YPA-03)	218	Hong, J. (NOA-02)	113

*Best student presentation award finalist

Hong, J. (OPB-12).....	126	Hu, Y. (FPA-11).....	73
Hong, J. (XPB-08).....	210	Hu, Y. (IPA-12).....	88
Hong, M. (GPB-04).....	78	Hua, Z. (LPA-03).....	103
Hong, Y. (WOC-13).....	194	Hua, Z. (MOA-13).....	107
Honnali, S. (VOA-11).....	181	Hua, Z. (MOA-17).....	107
Hono, K. (AOA-09).....	10	Huai, C. (COC-10).....	36
Hono, K. (QOA-06).....	138	Huan, Y. (LPA-18).....	105
Hono, K. (UOB-07).....	176	Huang, B. (XPB-08).....	210
Hono, K. (VOA-07).....	180	Huang, C. (BOA-02).....	20
Hono, K. (WOA-02).....	188	Huang, C. (DOA-04).....	46
Hono, K. (WOA-05).....	189	Huang, C. (DOB-09).....	49
Hono, K. (WOA-09).....	189	Huang, C. (IPB-05).....	89
Hono, K. (WOA-12).....	189	Huang, D. (OOB-03).....	121
Hono, K. (WOB-07).....	191	Huang, J. (APB-12).....	18
Hono, K. (WOB-12).....	191	Huang, J. (GPA-11).....	76
Hopkinson, D. (APA-08).....	16	Huang, J. (GPA-16).....	77
Hori, M. (JOA-04).....	91	Huang, L. (APB-12).....	18
Horibe, S. (DOA-09).....	47	Huang, L. (COD-10).....	38
Horibe, Y. (VPA-04).....	184	Huang, L. (HPA-15).....	83
Horiuchi, T. (NOA-10).....	114	Huang, L. (HPA-18).....	83
Hornig, L. (TPA-07).....	171	Huang, L. (SOB-06).....	151
Hornig, L. (TPC-07).....	174	Huang, L. (VPA-14).....	185
Hornig, L. (XPC-11).....	212	Huang, L. (XPC-04).....	211
Horvath, A. (SB-05).....	3	Huang, N. (BPA-16).....	30
Hosen, K. (NOA-08).....	114	Huang, P. (EPA-02).....	66
Hoshi, K. (DOA-07).....	47	Huang, P. (HPA-07).....	82
Hoshi, K. (DOA-09).....	47	Huang, P. (IPB-05).....	89
Hoshi, K. (SPA-13).....	163	Huang, P. (JPB-16).....	96
Hoshi, K. (TOB-17).....	168	Huang, P. (JPB-18).....	96
Hoshika, T. (BOC-07).....	25	Huang, P. (POB-07).....	129
Hoskins, B.D. (NOB-11).....	116	Huang, P. (PPD-04).....	137
Hosoda, N. (MOA-05).....	106	Huang, R. (GPA-14).....	76
Hosohata, R. (XPA-11).....	214	Huang, R. (GPB-10).....	79
Hosohata, R. (XPB-12).....	210	Huang, S. (COC-01).....	35
Hosokawa, A. (WOC-03).....	192	Huang, S. (DOA-06).....	47
Hosokawa, A. (WOC-08).....	193	Huang, S. (FOA-01).....	69
Hosokawa, H. (POA-12).....	127	Huang, S. (IOB-09).....	86
Hosokawa, H. (VOB-10).....	182	Huang, S. (IOB-11).....	87
Hosono, H. (XOD-02).....	207	Huang, S. (IPB-10).....	90
Hosono, M. (VOA-02).....	179	Huang, S. (JOA-06).....	91
Hotta, Y. (XPA-12).....	214	Huang, S. (JPA-11).....	93
Hou, F. (EOB-04).....	64	Huang, S. (JPB-01).....	94
Hou, J. (BOA-03).....	20	Huang, S. (JPB-10).....	95
Hou, X. (POA-14).....	128	Huang, S. (LOA-09).....	102
Hou, Y. (COC-10).....	36	Huang, S. (RPA-02).....	149
Hou, Y. (EOB-01).....	63	Huang, T. (APC-03).....	19
Hou, Z. (COA-12).....	32	Huang, T. (NPA-06).....	118
Houshmand Sharifi, S. (OOB-06).....	121	Huang, T. (XOC-05).....	205
Hrkac, G. (WOB-10).....	191	Huang, W. (IPB-05).....	89
Hrton, M. (SOD-02).....	155	Huang, X. (MPB-06).....	112
Hsiao, C. (BPA-05).....	28	Huang, Y. (BOA-02).....	20
Hsieh, C. (QPA-14).....	143	Huang, Y. (DOA-04).....	46
Hsieh, H. (ZPA-04).....	222	Huang, Y. (DPB-07).....	57
Hsieh, M. (FPA-16).....	74	Huang, Z. (MPB-05).....	112
Hsieh, M. (HPA-03).....	81	Huang, Z. (VPA-14).....	185
Hsieh, M. (JPB-18).....	96	Huang, Z. (XOA-03).....	202
Hsin, T. (DOB-04).....	48	Huang, Z. (XPC-04).....	211
Hsu, L. (POB-06).....	129	Huber, F. (XPA-06).....	213
Hsu, P. (COC-01).....	35	Huddart, B. (COB-08).....	34
Hsu, P. (COC-02).....	35	Huebl, H. (BPA-13).....	29
Hsu, T. (RPA-02).....	149	Huebl, H. (DOC-11).....	51
Hsu, T. (RPA-06).....	149	Hueso, L. (AOC-10).....	14
Hsu, W. (ZOA-11).....	220	Hueso, L. (COE-02).....	39
Hsu, Y. (IPB-04).....	89	Hueso, L. (COE-03).....	39
Hu, B. (MOA-03).....	106	Hueso, L. (DOC-03).....	50
Hu, C. (DOB-09).....	49	Hug, H.J. (CPA-14).....	43
Hu, G. (FOA-08).....	70	Hug, H.J. (EOA-06).....	62
Hu, G. (SG-01).....	8	Huh, S. (KPA-23).....	101
Hu, H. (LPA-12).....	104	Huhtasalo, J. (DOE-04).....	53
Hu, H. (VPB-13).....	187	Hula, T. (SOE-11).....	158
Hu, J. (JPB-02).....	94	Hunt, R. (QOB-07).....	140
Hu, M. (CPB-04).....	44	Hurley, D. (VOA-10).....	180
Hu, M. (HPA-15).....	83	Hurley, D. (XOB-09).....	205
Hu, M. (HPA-18).....	83	Hussain, M.Z. (EPB-01).....	67
Hu, W. (YOA-03).....	215	Hutanu, V. (SOC-11).....	154
Hu, Y. (CPA-04).....	42	Hutin, L. (APC-12).....	20

*Best student presentation award finalist

Hutin, L. (CPB-13)	45	Imura, K. (XPB-05)	210
Hutin, L. (DOB-11)	49	In, C. (DOA-11)	47
Huynh, T. (JPB-18)	96	Inaba, N. (VPB-04)	186
Hwang, C. (CPA-03)	41	Inaba, N. (VPB-10)	187
Hwang, S. (KPA-07)	98	Inaba, N. (WPB-09)	199
Hwang, Y. (SB-04)	3	Inada, K. (KPA-05)	98
Hwang, Y. (SOD-04)	155	Inгла-Aynes, J. (COE-02)	39
Hwang, Y. (XOD-12)	208	Inгла-Aynes, J. (COE-03)	39
- I -			
Iacocca, E. (TOB-01)	165	Inoue, H. (AOC-04)	13
Ibrahim, F. (COA-04)	31	Inoue, K. (WOC-06)	193
Ibrahim, F. (COC-07)	36	Inoue, M. (QOB-13)	141
Ibrahim, F. (COC-11)	37	Inoue, M. (QPB-01)	144
Ibrahim, F. (COD-09)	38	Inoue, M. (SPA-01)	161
Ibrahim, F. (COE-08)	40	Inoue, T. (FOA-14)	71
Ibrayeva, A. (LOA-06)	101	Inoue, T. (FOA-15)	71
Ibrayeva, A. (WOD-10)	195	Inoue, T. (IOA-03)	84
Ichikawa, R. (XOD-01)	207	Inoue, T. (IOA-09)	85
Ichikawa, S. (XOC-10)	206	Inoue, T. (KOA-03)	97
Ichikawa, Y. (XOD-09)	208	Inoue, T. (KOA-07)	97
Ichinose, T. (AOA-06)	9	Inoue, Y. (EOB-09)	64
Ichinose, T. (DOE-01)	52	Ipatov, M. (QOA-10)	139
Ichinose, T. (DOE-03)	53	Ipatov, M. (VOA-05)	180
Ichiyangi, Y. (XPC-01)	211	Ipatov, M. (VPA-05)	184
Ieda, J. (AOB-01)	11	Ipatov, M. (VPA-08)	184
Ieda, J. (AOC-07)	13	Ipatov, M. (VPA-12)	185
Ieda, J. (ROB-07)	148	Iriyama, T. (WOC-05)	192
Igarashi, J. (SOA-04)	150	Ise, T. (NPA-03)	117
Igarashi, T. (POA-08)	127	Ishibashi, K. (DOB-02)	48
Igarashi, T. (PPB-03)	133	Ishibashi, M. (SPA-08)	162
Igarashi, Y. (YOA-10)	216	Ishibashi, T. (QOB-10)	141
Igarashi, Y. (YPA-04)	218	Ishibashi, T. (QPB-04)	144
Iglesias, L. (SOD-03)	155	Ishida, S. (FOA-16)	71
Iglesias, O. (SC-01)	4	Ishida, S. (KPA-02)	98
Iguchi, R. (WOA-05)	189	Ishido, R. (MOA-05)	106
Iguchi, R. (ZOA-05)	220	Ishigami, K. (WOA-01)	188
Iguchi, S. (BOB-12)	24	Ishihara, T. (PPC-15)	136
Iihama, S. (DOB-02)	48	Ishii, T. (VPA-04)	184
Iihama, S. (DOB-08)	49	Ishii, T. (VPA-10)	184
Iihama, S. (SOD-11)	156	Ishikawa, E. (VOA-06)	180
Iimori, R. (DPB-02)	56	Ishikawa, K. (GPA-05)	75
Iimori, R. (DPB-15)	58	Ishikawa, R. (CPA-01)	41
Ikeda, J. (DOB-08)	49	Ishitobi, M. (MOA-14)	107
Ikeda, K. (KPA-10)	99	Ishitobi, M. (MOB-06)	108
Ikeda, K. (KPA-12)	99	Ishiyama, K. (QOB-13)	141
Ikeda, K. (KPA-16)	100	Ishiyama, K. (QPB-01)	144
Ikeda, K. (MPB-01)	112	Ishiyama, K. (QPB-07)	145
Ikeda, K. (QOB-11)	141	Ishiyama, K. (SPA-01)	161
Ikeda, K. (QPB-02)	144	Ishiyama, K. (YPA-04)	218
Ikeda, K. (RPA-05)	149	Ishizuka, J. (ZPA-01)	221
Ikeda, M. (POA-08)	127	Ishizuka, Y. (MPA-08)	110
Ikeda, S. (AOC-04)	13	Isobe, T. (PPB-05)	133
Ikeda, S. (MPA-03)	110	Isogami, S. (APA-02)	15
Ikeda, Y. (DOC-12)	51	Isogami, S. (BOA-10)	21
Ilhan Caarls, E. (LOA-05)	101	Isogami, S. (DOB-05)	48
Ilic, S. (AOC-10)	14	Isogami, S. (QPB-04)	144
Iliushin, I. (XPA-08)	213	Isogami, S. (UOB-06)	176
Ilyakov, I. (SOD-01)	155	Isogami, S. (XPA-02)	213
Im, M. (CPA-03)	41	Isshiki, H. (BOA-04)	20
Im, S. (GPB-08)	78	Isshiki, H. (YOB-04)	217
Imai, J. (LPA-01)	103	Istiqomah, N.I. (EPA-09)	66
Imai, Y. (APC-09)	19	Istiqomah, N.I. (XPC-07)	211
Imamori, S. (GPA-05)	75	Isurugi, D. (NPA-01)	117
Imamori, S. (KOA-08)	97	Itagaki, A. (MPA-08)	110
Imamori, S. (MOB-01)	108	Itakura, M. (WPB-09)	199
Imamura, H. (DOE-01)	52	Ito, J. (POC-12)	132
Imamura, K. (XPA-02)	213	Ito, K. (HOA-02)	80
Imano, Y. (VPA-06)	184	Ito, K. (HOA-03)	80
Imaoka, N. (POA-11)	127	Ito, K. (HOA-08)	81
Imaoka, N. (POA-12)	127	Ito, K. (XOB-03)	204
Imaoka, N. (PPB-12)	134	Ito, N. (VOA-09)	180
Imaoka, N. (VOB-10)	182	Ito, T. (CPA-16)	43
Imtiyaz Ali Khan, K. (DPC-10)	59	Ito, Y. (EPA-08)	66
Imura, K. (RPA-03)	149	Itoh, H. (APA-07)	15
		Itoh, H. (CPA-20)	43
		Ivanov, B. (BOD-08)	27
		Ivanov, B. (TOA-11)	165

*Best student presentation award finalist

Iwahara, N. (UOA-09)	175
Iwai, K. (MPA-01)	109
Iwai, K. (WPC-01)	200
Iwaki, K. (HOA-02)	80
Iwaki, K. (HOA-08)	81
Iwamoto, S. (QPB-02)	144
Iwasaka, M. (EPB-04)	68
Iwasaki, H. (POC-06)	131
Iwasaki, H. (POC-09)	131
Iwasaki, H. (POC-10)	131
Iwasaki, Y. (AOA-02)	9
Iwasaki, Y. (SA-04)	2
Iwata, T. (DPB-04)	56
Izquierdo, M. (SOF-05)	160

- J -

J. Lopes, J. (COE-06)	40
Jaafar, M. (SD-01)	5
Jackson, J. (SOA-07)	150
Jaffrès, H. (AOB-09)	12
Jaffrès, H. (APB-06)	17
Jaffrès, H. (COD-04)	37
Jaffrès, H. (COD-09)	38
Jaffrès, H. (COE-05)	39
Jahjah, W. (ROA-07)	147
Jain, R. (COE-01)	39
Jain, R. (CPB-10)	45
Jaiswal, S. (POC-07)	131
Jakob, G. (AOA-10)	10
Jakob, G. (BOB-03)	22
Jakob, G. (BPA-14)	29
Jakob, G. (COB-13)	34
Jalabert, D. (COE-08)	40
Jalil, M.B. (CPB-02)	44
Jamet, M. (COC-11)	37
Jamet, M. (COD-09)	38
Jamet, M. (COE-04)	39
Jamet, M. (COE-08)	40
Jamil, A. (EPB-01)	67
Jana, S. (SOF-04)	159
Jander, A. (QOA-01)	138
Jang, G. (FPA-02)	72
Jang, G. (IOA-06)	85
Jang, J. (NPA-10)	118
Jang, Y. (NOB-14)	117
Jang, Y. (WPA-12)	197
Jannet, G. (POB-05)	129
Jansen, R. (BOC-12)	26
Janssens, W. (DPA-03)	54
Janzen, C. (XOA-05)	202
Jaouen, N. (COB-07)	33
Jay, J. (ROA-07)	147
Jefremovas, E.M. (XOD-05)	208
Jena, J. (COB-10)	34
Jena, S.K. (XOB-10)	205
Jenkins, A. (NOB-03)	115
Jenkins, A. (NOB-05)	115
Jenkins, A. (PPA-03)	132
Jenkins, A. (SG-02)	8
Jenkins, A. (SG-03)	8
Jenkins, A. (TOB-08)	166
Jenkins, A. (TPA-08)	171
Jenkins, A. (TPA-09)	171
Jenkins, S. (COA-07)	31
Jenkins, S. (CPB-03)	44
Jenkins, S. (WOD-01)	194
Jeon, Y. (XOC-07)	206
Jeon, Y. (XPC-08)	212
Jeong, D. (APC-04)	19
Jeong, E. (XOC-07)	206
Jeong, E. (XPC-08)	212
Jeong, H. (APB-07)	17
Jeong, J. (DOD-03)	52
Jeong, O. (KPA-23)	101
Jesla, P. (QOA-12)	139
Jeudy, V. (COA-02)	31

Jewell, G.W. (FOA-10)	71
Jhuria, K. (BOD-01)	26
Ji, G. (NPA-15)	119
Ji, Y. (CPA-03)	41
Ji, Y. (DOA-01)	46
Jia, L. (KPA-20)	100
Jia, L. (MOA-16)	107
Jia, M. (LOA-09)	102
Jiahao, L. (OPB-02)	125
Jiang, C. (DOE-05)	53
Jiang, C. (MOA-03)	106
Jiang, D. (NPA-15)	119
Jiang, H. (FOA-08)	70
Jiang, J. (IPB-08)	90
Jiang, L. (RPA-01)	148
Jiang, M. (IPA-10)	88
Jiang, N. (BOA-08)	21
Jiang, N. (COE-07)	40
Jiang, P. (DPB-09)	57
Jiang, P. (XPA-05)	213
Jiang, S. (BOD-09)	27
Jiang, T. (WOB-08)	191
Jiang, W. (CPA-02)	41
Jiang, W. (FPA-01)	72
Jiang, W. (JOA-10)	91
Jiang, Y. (APA-01)	14
Jiang, Y. (BOC-10)	25
Jiang, Y. (CPB-11)	45
Jiang, Y. (DPB-03)	56
Jiang, Y. (DPC-04)	59
Jiang, Y. (OPB-11)	126
Jiang, Y. (TPB-04)	172
Jiang, Z. (KPA-07)	98
Jiang, Z. (MPB-09)	113
Jimenez Caverro, P. (BOA-12)	22
Jin, B. (QPA-07)	143
Jin, Q. (TPB-03)	172
Jin, S. (IPB-01)	89
Jin, T. (AOB-06)	11
Jin, T. (BOC-11)	26
Jin, W. (COC-09)	36
Jin, Z. (LPA-02)	103
Jin, Z. (SOE-10)	158
Jin, Z. (ZOA-13)	221
Jin, Z. (ZOA-14)	221
Jo, D. (APB-10)	18
Jo, N. (GPB-04)	78
Johannes, M.D. (COD-02)	37
Johansson, A. (DOC-03)	50
Johansson, O. (OOB-15)	123
Joisten, H. (EOB-01)	63
Jong-Woo, K. (WOB-09)	191
Jonker, B.T. (COD-02)	37
Joshi, P. (QPB-14)	146
Joshi, R. (QPB-11)	145
Jossart, N. (DOE-02)	53
Jossart, N. (OOB-06)	121
Jossart, N. (OOB-08)	122
Joumard, I. (BOA-09)	21
Joumard, I. (COA-04)	31
Joumard, I. (DPC-06)	59
Jourdan, M. (BOD-03)	26
Joy, A. (BPA-19)	30
Ju, S. (QOA-08)	139
Ju, T. (CPA-03)	41
Jué, E. (SD-05)	5
Juharni, J. (XPC-07)	211
Jung, A. (QOB-03)	140
Jung, D. (GPB-04)	78
Jung, D. (GPB-13)	79
Jung, E. (MPB-03)	112
Jung, Y. (GPA-10)	76
Jung, Y. (JPA-13)	94
Jungfleisch, B. (TOB-01)	165
Jungwirth, T. (BOA-09)	21
Jungwirth, T. (XOB-01)	203
Jürries, F. (WOD-07)	195

*Best student presentation award finalist

- K -

Kaczmarek, A. (VOB-01)	181	Karpuzcu, U. (NOB-12)	117
Kado, M. (DPA-02)	54	Karube, K. (COB-09)	34
Kaffash, M.T. (TOB-01)	165	Karube, K. (YOA-06)	215
Kagami, T. (EOA-12)	63	Karube, S. (BOC-07)	25
Kagawa, F. (YOA-06)	215	Karube, S. (CPB-06)	44
Kahourzade, S. (GOA-01)	74	Karube, S. (SOC-14)	154
Kai, T. (KPA-08)	99	Kasai, S. (AOA-02)	9
Kai, Y. (JPB-03)	95	Kasai, S. (APA-10)	16
Kai, Y. (JPB-06)	95	Kasai, S. (NPA-06)	118
Kaiju, H. (APA-04)	15	Kasai, S. (TPB-01)	171
Kaiju, H. (APA-05)	15	Kasai, S. (XPC-09)	212
Kaiju, H. (ZPA-06)	222	Kasajima, T. (EOB-12)	65
Kajima, R. (DPB-02)	56	Kasajima, T. (POB-08)	129
Kajita, T. (WOA-06)	189	Kashyap, A. (ZPA-09)	222
Kajiura, Y. (VOA-02)	179	Kasuya, M. (QPB-07)	145
Kajiya, T. (IOA-04)	84	Kasuya, M. (VPB-06)	186
Kajiya, T. (IPA-01)	87	Kateel, V. (OOB-08)	122
Kákay, A. (SOD-01)	155	Kateel, V. (OOB-13)	122
Kákay, A. (SOE-11)	158	Katine, J. (DPC-01)	58
Kákay, A. (SPA-09)	162	Katine, J. (YOA-02)	214
Kaku, H. (VPB-05)	186	Kato, A. (SA-06)	2
Kaku, H. (WPB-01)	198	Kato, A. (WOA-01)	188
Kakushima, K. (COC-03)	35	Kato, A. (WOA-03)	188
Kaloshkin, S. (VOA-05)	180	Kato, A. (WOC-13)	194
Kamada, Y. (XPB-01)	209	Kato, H. (KPA-10)	99
Kamata, N. (APA-06)	15	Kato, H. (KPA-12)	99
Kambayashi, M. (WPB-03)	198	Kato, H. (KPA-16)	100
Kameda, M. (CPA-11)	42	Kato, H. (MPB-01)	112
Kammerbauer, F. (COA-10)	32	Kato, H. (WPB-09)	199
Kammerbauer, F. (COB-13)	34	Kato, M. (KPA-06)	98
Kammerbauer, F. (CPA-13)	43	Kato, M. (KPA-15)	99
Kammerbauer, F. (DPC-11)	60	Kato, M. (ZPA-03)	221
Kammerer, J. (POC-04)	130	Kato, T. (APC-10)	19
Kamozawa, H. (PPB-07)	133	Kato, T. (EPA-01)	65
Kamper, M.J. (LOA-07)	102	Kato, T. (EPA-09)	66
Kampfrath, T. (DOA-11)	47	Kato, T. (KPA-10)	99
Kamra, A. (DOC-11)	51	Kato, T. (KPA-12)	99
Kan, D. (ZPA-01)	221	Kato, T. (KPA-16)	100
Kanai, S. (BOA-03)	20	Kato, T. (MPB-01)	112
Kanai, S. (SB-01)	3	Kato, T. (OPB-03)	125
Kanai, Y. (OPA-06)	124	Kato, T. (POC-03)	130
Kanai, Y. (PPB-05)	133	Kato, T. (XOC-05)	205
Kanamori, Y. (WOC-06)	193	Kato, T. (XPC-07)	211
Kanaya, T. (SF-05)	7	Katsuyuki, N. (AOA-05)	9
Kanaya, T. (VPA-09)	184	Katzer, D. (QOA-01)	138
Kanda, D. (XOC-10)	206	Kaul, S.N. (QPB-11)	145
Kandasami, A. (DPA-09)	55	Kaul, S.N. (TPB-11)	172
Kandazoglou, A. (APC-12)	20	Kaur, P. (QOA-03)	138
Kandazoglou, A. (CPB-13)	45	Kautsar, Z. (VOA-07)	180
Kandazoglou, A. (DOB-11)	49	Kautsar, Z. (WOA-05)	189
Kaneko, T. (MOA-05)	106	Kawabata, S. (EPB-11)	69
Kanevskiy, Y. (EOB-02)	63	Kawachi, S. (XOD-02)	207
Kanevskiy, Y. (EOB-05)	64	Kawada, K. (PPC-03)	135
Kang, J. (APB-07)	17	Kawada, K. (PPC-12)	136
Kang, J. (DOD-03)	52	Kawada, N. (MPA-06)	110
Kang, J. (GPA-06)	75	Kawada, N. (POA-09)	127
Kang, J. (GPB-13)	79	Kawada, S. (OPA-07)	124
Kang, J. (GPB-14)	79	Kawada, S. (OPA-09)	124
Kang, J. (OPB-09)	125	Kawagoe, T. (XOA-02)	201
Kang, M. (DOD-03)	52	Kawaguchi, I. (XPC-01)	211
Kang, M. (WPC-13)	201	Kawaguchi, Y. (CPA-11)	42
Kang, N. (GPB-03)	78	Kawahara, K. (MOA-05)	106
Kang, P. (OOB-16)	123	Kawahito, Y. (UOB-10)	177
Kang, W. (COA-12)	32	Kawai, K. (POA-14)	128
Kang, Y. (EOB-04)	64	Kawai, T. (VOA-06)	180
Kani, N. (QOA-09)	139	Kawai, T. (VPB-04)	186
Kanie, K. (QPB-07)	145	Kawakami, Y. (POA-12)	127
Kanie, K. (VPB-06)	186	Kawakami, Y. (VOB-10)	182
Kanki, T. (DPA-16)	56	Kawamura, K. (WPC-02)	200
Kano, R. (MPB-01)	112	Kawashima, K. (DOA-08)	47
Kar, G. (DOE-02)	53	Kawashima, N. (SA-06)	2
Kar, G. (NOA-05)	114	Kayal, S. (BPA-19)	30
Kar, G. (QOA-02)	138	Kazuumi, I. (AOA-05)	9
Kar, N. (IOB-05)	86	Keatley, P.S. (OOB-15)	123
Kar, N. (LOA-12)	102	Keatley, P.S. (QOB-07)	140
Karpenkov, D. (UOB-08)	177	Keatley, P.S. (SOA-02)	150
		Keatley, P.S. (SOA-03)	150

*Best student presentation award finalist

Keatley, P.S. (YOA-02)	214	Kim, J. (WPB-12)	199
Kehagias, T. (DOC-13)	51	Kim, J. (WPC-13)	201
Kehlberger, A. (XOB-07)	204	Kim, J. (XOD-12)	208
Kennedy, J. (DPA-09)	55	Kim, J. (YOA-09)	216
Kern, K. (COE-10)	41	Kim, K. (APB-10)	18
Kernion, S. (VPA-01)	183	Kim, K. (BPA-15)	30
Kevan, S. (YOA-03)	215	Kim, K. (CPA-03)	41
Kézsmárki, I. (SOC-11)	154	Kim, K. (DPA-12)	55
Kézsmárki, I. (YOA-06)	215	Kim, K. (GPA-09)	76
Khademi, M. (DOC-09)	50	Kim, K. (GPA-10)	76
Khalili, P. (DPC-01)	58	Kim, K. (GPB-05)	78
Khalili, P. (PPD-03)	137	Kim, K. (GPB-07)	78
Khan, F. (HPA-04)	81	Kim, K. (GPB-13)	79
Khan, F. (IOA-02)	84	Kim, K. (JPA-13)	94
Khan, F. (IOB-02)	86	Kim, K. (MPA-02)	110
Khandelwal, A. (UOA-01)	174	Kim, K. (NPA-13)	119
Kharitonov, V. (XPA-08)	213	Kim, K. (OPB-09)	125
Kharitonov, V. (XPC-08)	212	Kim, K. (PPB-01)	133
Kharlan, J. (SOC-09)	153	Kim, K. (PPB-06)	133
Khatri, Y. (ZPA-09)	222	Kim, K. (PPB-10)	134
Khizroev, S. (EOB-14)	65	Kim, K. (SOD-07)	156
Khizroev, S. (ROA-04)	146	Kim, K. (TPA-01)	170
Khovaylo, V. (UOB-08)	177	Kim, K. (TPA-10)	171
Khunkitti, P. (JOA-12)	92	Kim, K. (VPB-02)	185
Khymyn, R. (AOB-05)	11	Kim, M. (APB-14)	18
Khymyn, R. (BOD-08)	27	Kim, M. (DPA-17)	56
Khymyn, R. (DPA-04)	54	Kim, M. (DPB-01)	56
Khymyn, R. (DPC-02)	58	Kim, M. (PPB-09)	133
Khymyn, R. (NOB-06)	116	Kim, M. (TOB-14)	167
Khymyn, R. (POA-02)	126	Kim, M. (TPA-03)	170
Khymyn, R. (SOA-06)	150	Kim, P. (KPA-13)	99
Khymyn, R. (SPA-14)	163	Kim, S. (APB-07)	17
Khymyn, R. (TOA-11)	165	Kim, S. (APC-04)	19
Kida, T. (QPB-07)	145	Kim, S. (DPA-15)	56
Kiechle, M. (SOB-01)	151	Kim, S. (EPA-13)	67
Kiechle, M. (SOC-12)	154	Kim, S. (NOA-04)	114
Kijima-Aoki, H. (QOB-11)	141	Kim, S. (SOE-05)	158
Kijima-Aoki, H. (RPA-05)	149	Kim, S. (TPA-01)	170
Kijima-Aoki, H. (XPB-02)	209	Kim, S. (TPA-06)	171
Kijima-Aoki, H. (XPC-05)	211	Kim, T. (WOA-14)	190
Kikitsu, A. (POC-08)	131	Kim, W. (DOE-02)	53
Kikkawa, T. (BOB-02)	22	Kim, W. (GPB-03)	78
Kikkawa, T. (DOB-01)	48	Kim, W. (GPB-04)	78
Kikkawa, T. (SOF-03)	159	Kim, W. (MPA-02)	110
Kikuchi, H. (PPC-09)	135	Kim, W. (TOB-04)	165
Kikuchi, K. (SOC-14)	154	Kim, W. (WPA-12)	197
Kikuchi, N. (NOA-09)	114	Kim, W. (YOA-09)	216
Kikuchi, N. (TOB-11)	166	Kim, Y. (HPA-02)	81
Kikuchi, N. (VPB-03)	186	Kim, Y. (NOB-14)	117
Kikuchi, N. (ZPA-02)	221	Kim, Y. (XOC-07)	206
Kikuta, T. (XPB-05)	210	Kim, Y. (XPC-08)	212
Kim, B. (HPA-02)	81	Kimel, A. (BOD-05)	27
Kim, B. (TPA-05)	170	Kimura, A. (APA-02)	15
Kim, C. (APB-10)	18	Kimura, A. (DOB-05)	48
Kim, C. (GPB-13)	79	Kimura, H. (XPA-12)	214
Kim, D. (DPB-01)	56	Kimura, S. (MPA-06)	110
Kim, D. (MPA-02)	110	Kimura, T. (DPB-02)	56
Kim, D. (MPA-12)	111	Kimura, T. (DPB-15)	58
Kim, D. (NOB-14)	117	Kimura, T. (SOE-03)	157
Kim, D. (TPA-03)	170	Kinane, C. (ZPA-11)	222
Kim, D. (WOA-14)	190	King, H. (EOB-02)	63
Kim, G. (XOC-07)	206	Kinoshita, A. (SA-06)	2
Kim, H. (GPA-06)	75	Kinoshita, A. (WOA-03)	188
Kim, H. (GPB-14)	79	Kinoshita, A. (WOC-13)	194
Kim, I. (YOA-09)	216	Kinugawa, R. (POA-15)	128
Kim, J. (GPA-06)	75	Kioussis, N. (DPC-01)	58
Kim, J. (GPA-09)	76	Kirino, F. (VPB-10)	187
Kim, J. (GPB-08)	78	Kishi, F. (DPA-16)	56
Kim, J. (GPB-09)	78	Kishida, N. (XOC-10)	206
Kim, J. (GPB-13)	79	Kishor Muduli, P. (DPC-10)	59
Kim, J. (GPB-14)	79	Kisic, M.G. (PPC-01)	134
Kim, J. (PPB-09)	133	Kisielewski, J. (XOB-10)	205
Kim, J. (PPB-10)	134	Kita, E. (EPA-05)	66
Kim, J. (QOA-11)	139	Kita, E. (PPB-05)	133
Kim, J. (SB-05)	3	Kita, N. (MPA-03)	110
Kim, J. (WOB-14)	192	Kita, Y. (PPD-07)	137
Kim, J. (WPB-04)	198	Kitagawa, S. (UPA-06)	178

*Best student presentation award finalist

Kitaguchi, D. (QPB-12)	145	Koguchi, T. (QPB-01)	144
Kitamoto, Y. (XOC-08)	206	Koguchi, T. (SPA-01)	161
Kitamoto, Y. (XOD-08)	208	Koh, D. (OPB-09)	125
Kitamura, T. (KPA-10)	99	Kohda, M. (APB-07)	17
Kitayama, F. (HPA-01)	81	Kohda, M. (BOC-07)	25
Kitayama, F. (KPA-06)	98	Kohda, M. (CPB-06)	44
Kiyotake, H. (IPA-01)	87	Kohda, M. (NPA-13)	119
Kladas, A.G. (JOA-13)	92	Kohda, M. (SOC-14)	154
Kladas, A.G. (SE-02)	6	Kohli, M. (POB-06)	129
Klar, P. (XOC-09)	206	Kohli, M. (ZOA-11)	220
Kläui, M. (AOA-10)	10	Kohno, H. (APC-09)	19
Kläui, M. (AOB-01)	11	Kohno, H. (BOD-10)	27
Kläui, M. (BOB-03)	22	Kohno, H. (BPA-18)	30
Kläui, M. (BOB-05)	23	Kohno, H. (DPB-05)	56
Kläui, M. (BOC-06)	25	Kohno, R. (SOD-13)	157
Kläui, M. (BOD-03)	26	Kohvakka, K. (COB-02)	33
Kläui, M. (BPA-14)	29	Koike, K. (WPB-09)	199
Kläui, M. (COA-10)	32	Koike, Y. (SOD-11)	156
Kläui, M. (COB-03)	33	Kojima, F. (PPC-05)	135
Kläui, M. (COB-11)	34	Kojima, H. (KPA-01)	98
Kläui, M. (COB-13)	34	Kokado, S. (APA-03)	15
Kläui, M. (COE-09)	40	Kokado, S. (UPA-08)	178
Kläui, M. (CPA-13)	43	Kollár, P. (VOB-08)	182
Kläui, M. (DPC-11)	60	Kollár, P. (VOB-11)	182
Kläui, M. (SOF-03)	159	Kolosvetov, A. (NOA-03)	113
Kläui, M. (XOB-07)	204	Komatsubara, K. (PPC-11)	136
Kleibert, A. (BOB-05)	23	Kometani, H. (HOA-01)	80
Klein, L. (POC-02)	130	Komine, T. (APA-05)	15
Klein, O. (SOD-13)	157	Komine, T. (DPC-05)	59
Klewe, C. (DOC-05)	50	Komiyama, H. (QPB-08)	145
Klewe, C. (SOA-02)	150	Komori, M. (IOB-10)	87
Klima, J. (SOD-02)	155	Komori, S. (RPA-03)	149
Knauer, S. (SOD-08)	156	Komori, S. (TOB-15)	167
Knauer, S. (SPA-11)	163	Komori, S. (XPB-05)	210
Knauer, S. (SPA-17)	163	Komori, T. (NOA-10)	114
Knight, A. (MOA-09)	106	Komuro, K. (POC-03)	130
Knox, C.S. (CPB-14)	46	Komuro, M. (VOB-07)	182
Ko, H. (DPA-12)	55	Komuro, M. (VOB-15)	183
Ko, K. (APB-10)	18	Kondo, R. (HPA-01)	81
Ko, M. (XOC-07)	206	Kondo, T. (DPA-02)	54
Ko, S. (OPB-09)	125	Kondou, K. (BOA-04)	20
Ko, S. (TPA-10)	171	Kondou, K. (BOA-07)	21
Kobayashi, H. (OPA-01)	123	Kondou, K. (SOD-04)	155
Kobayashi, I. (KPA-10)	99	Kong, L. (OPB-10)	125
Kobayashi, K. (CPA-11)	42	Kono, K. (WPA-13)	197
Kobayashi, N. (QOB-11)	141	Kononenko, I. (CPA-13)	43
Kobayashi, N. (QPB-02)	144	Konoto, M. (DOE-01)	52
Kobayashi, N. (RPA-04)	149	Konoto, M. (DOE-03)	53
Kobayashi, N. (RPA-05)	149	Koo, J. (KPA-23)	101
Kobayashi, N. (VPB-14)	187	Kools, T.J. (XOB-07)	204
Kobayashi, N. (XOC-10)	206	Koopmans, B. (AOC-11)	14
Kobayashi, S. (MPA-05)	110	Koopmans, B. (APA-11)	16
Kobayashi, S. (XPA-12)	214	Koopmans, B. (XOB-07)	204
Kobayashi, S. (XPB-01)	209	Koplak, O. (SG-05)	8
Kobayashi, S. (XPC-01)	211	Koraltan, S. (CPA-10)	42
Kobayashi, T. (POB-01)	128	Koraltan, S. (DPC-14)	60
Kobayashi, Y. (BOA-10)	21	Koraltan, S. (SOD-08)	156
Kobayashi, Y. (BOB-13)	24	Koraltan, S. (TOC-07)	169
Kobayashi, Y. (BPA-11)	29	Körber, L. (SOD-01)	155
Kobayashi, Y. (BPA-12)	29	Körber, L. (SOE-11)	158
Kobe, S. (WOB-03)	190	Korcia, M. (YOA-08)	216
Koch, D. (QOA-09)	139	Kornelius, N. (VOA-11)	181
Koch, D. (QPA-05)	142	Kornelius, N. (WOD-07)	195
Koch, D. (WOA-10)	189	Kornell, A. (SA-06)	2
Kocsis, V. (SOC-11)	154	Kornell, A. (SOB-03)	151
Koda, T. (SPA-04)	161	Kosaka, D. (PPC-05)	135
Koda, T. (TPC-08)	174	Kosaka, N. (XOD-13)	209
Kodama, S. (OPA-01)	123	Kosaka, S. (APA-03)	15
Kodama, S. (OPA-02)	123	Kosaka, T. (MOA-02)	105
Kodama, T. (TOB-11)	166	Kosaki, H. (DOD-05)	52
Kodama, T. (ZPA-02)	221	Kosel, J. (APA-09)	16
Kodama, Y. (MPA-04)	110	Kosogor, A. (QPB-15)	146
Koenig, M. (NOA-01)	113	Kota, Y. (DPB-14)	58
Koga, T. (MPA-08)	110	Kota, Y. (UOB-06)	176
Koganezawa, S. (OPA-07)	124	Kotsugi, M. (TPC-02)	173
Koganezawa, S. (OPA-09)	124	Kotsugi, M. (YOA-10)	216
Koguchi, T. (QOB-13)	141	Kotsugi, M. (YPA-04)	218

*Best student presentation award finalist

Lai, C. (BOD-06)	27	Lee, J. (OPB-09)	125
Lai, J. (QOA-06)	138	Lee, J. (WOA-11).	189
Lai, K. (TPA-07)	171	Lee, J. (WOA-14)	190
Lai, K. (TPC-07)	174	Lee, K. (APB-07).	17
Lai, K. (XPC-11)	212	Lee, K. (BPA-01)	28
Lai, Y. (COC-01)	35	Lee, K. (COB-11).	34
Lai, Y. (XPB-08)	210	Lee, K. (COE-09).	40
Lak, A. (SC-04)	4	Lee, K. (DOD-03)	52
Lallart, M. (KPA-22)	100	Lee, K. (DPA-12).	55
Laloy, D. (MOB-05)	108	Lee, K. (DPC-11).	60
Lambert, C. (SOF-05)	160	Lee, K. (NOA-04)	114
Lamouri, R. (MPA-02).	110	Lee, K. (OPB-09).	125
Lamouri, R. (PPB-06)	133	Lee, M. (COA-08)	31
Lamouri, R. (VPB-02)	185	Lee, M. (NOB-14)	117
Lamperti, A. (DOD-06)	52	Lee, M. (YOA-09)	216
Lan, H. (GPB-12).	79	Lee, P. (APB-03)	16
Lang, J. (HOA-05)	80	Lee, S. (APC-04)	19
Lange, G. (COD-08)	38	Lee, S. (COE-03)	39
Langer, J. (DOD-06)	52	Lee, S. (CPB-10)	45
Langer, J. (NOB-09)	116	Lee, S. (DOA-06).	47
Langer, R. (COC-05)	35	Lee, S. (DOD-03).	52
Langridge, S. (ZPA-11)	222	Lee, S. (DPA-17)	56
Larasati, D.A. (EPA-09).	66	Lee, S. (DPB-01)	56
Largeau, L. (COD-04)	37	Lee, S. (NOA-05).	114
Laroze, D. (VOA-04).	180	Lee, S. (OPB-09)	125
Lau, Y. (BOA-11).	22	Lee, S. (PPB-10)	134
Lau, Y. (DOB-08).	49	Lee, S. (TOB-14)	167
Lauerburg, M. (JOA-01)	90	Lee, S. (TPA-01)	170
Laughlin, D.E. (OOA-01)	119	Lee, S. (TPA-06)	171
Laurenceau, E. (EOA-08)	62	Lee, S. (WOA-14)	190
Lavrijsen, R. (DPC-11)	60	Lee, T. (BPA-15)	30
Lavrijsen, R. (XOB-07)	204	Lee, T. (TPA-01)	170
Lawrence, R.A. (SOB-09)	152	Lee, W. (BPA-01).	28
Le Besnerais, J. (FOA-03)	70	Lee, W. (TU-03)	1
Le Grand, Y. (ROA-07)	147	Lee, W. (WOA-14).	190
Le Menach, Y. (FOA-03)	70	Lee, W. (WOB-04).	190
Le Roy, D. (EOA-08).	62	Lee, W. (WPA-12)	197
Le Roy, D. (XOC-11).	206	Lee, Y. (COC-09)	36
Le Roy, D. (XPB-06)	210	Lee, Y. (CPB-10)	45
Le, Q.T. (BOD-09).	27	Lee, Y. (HPA-05)	82
Le, T. (YPA-07)	219	Lee, Y. (HPA-12)	83
Lebrun, R. (BOB-03)	22	Lee, Y. (UOA-06).	175
Lebrun, R. (SOD-03)	155	Lee, Y. (UPA-11)	179
Lebrun, R. (SOE-12)	159	Lee, Y. (YOB-06).	217
Leckron, K. (SOF-02)	159	Lee, Z. (JPB-18)	96
Lederer, M. (XOA-04).	202	Lefvre, P. (COD-04).	37
Lee, B. (EPA-13)	67	Legrand, W. (DOB-06)	48
Lee, C. (CPA-03)	41	Lei, G. (FPA-04)	72
Lee, C. (QPA-14)	143	Lei, G. (FPA-08)	73
Lee, D. (IOA-06)	85	Lei, G. (IPB-02).	89
Lee, G. (NPA-13)	119	Lei, G. (JOA-08)	91
Lee, G. (WPB-12)	199	Lei, G. (JPA-03)	92
Lee, H. (APB-10).	18	Lei, G. (JPA-08)	93
Lee, H. (EPA-13)	67	Lei, G. (JPA-12).	93
Lee, H. (GPB-05).	78	Lei, G. (LOA-08)	102
Lee, H. (HPA-05).	82	Lei, G. (LPA-20)	105
Lee, H. (HPA-12).	83	Lei, N. (APC-13)	20
Lee, H. (LPA-08)	104	Lei, N. (COA-14).	32
Lee, H. (PPB-10)	134	Lei, N. (COB-12).	34
Lee, H. (WOB-04).	190	Lei, N. (DOE-05).	53
Lee, H. (WPA-12)	197	Leistner, K. (VOA-11).	181
Lee, H. (WPB-04)	198	Leitao, D. (POC-05).	131
Lee, J. (FPA-03).	72	Leitenstorfer, A. (SOF-06).	160
Lee, J. (FPA-17).	74	Leiviskä, M. (BOA-09)	21
Lee, J. (GPA-06)	75	Leiviskä, M. (COA-07)	31
Lee, J. (GPB-01)	77	Leliaert, J. (COA-09)	31
Lee, J. (GPB-09)	78	Leliaert, J. (ZOA-02)	219
Lee, J. (GPB-13)	79	Leliaert, J. (ZOA-04)	220
Lee, J. (GPB-14)	79	Lemaitre, A. (BOD-01)	26
Lee, J. (HPA-02)	81	Lemaitre, A. (COD-04)	37
Lee, J. (HPA-05)	82	Lendinez, S. (TOB-01).	165
Lee, J. (HPA-11).	82	Leng, Q. (OOB-07)	122
Lee, J. (HPA-12)	83	Lenne, S. (BOA-12).	22
Lee, J. (KPA-13)	99	Lenne, S. (DOC-02).	49
Lee, J. (MOA-07).	106	Lentfert, A. (SOF-07).	160
Lee, J. (NOB-14)	117	Lentfert, A. (TOB-06)	166
Lee, J. (OPA-05)	124	Lenz, K. (SOC-10).	154

*Best student presentation award finalist

Lenz, K. (SOD-01)	155	Li, T. (BPA-05)	28
Lenz, K. (SPA-06)	162	Li, T. (EOB-04)	64
Lenz, K. (TOB-13)	167	Li, T. (MPB-05)	112
Leou, K. (QPA-14)	143	Li, T. (MPB-09)	113
Leow, C.H. (XOD-10)	208	Li, T. (POB-07)	129
Lequeux, S. (OOB-14)	122	Li, W. (BPA-06)	28
Leroux, N. (SG-03)	8	Li, W. (DOE-05)	53
Leroy, F. (DOB-11)	49	Li, W. (FPA-10)	73
Lesniewski, N. (SPA-12)	163	Li, W. (GPA-13)	76
Lesniewski, N. (TPB-05)	172	Li, W. (GPB-11)	79
Létang, J. (APA-09)	16	Li, W. (IPB-09)	90
Lete, N. (EOA-01)	61	Li, W. (IPB-12)	90
Letushev, M. (APC-01)	18	Li, W. (LOA-12)	102
Letushev, M. (APC-05)	19	Li, W. (LPA-12)	104
Levchenko, K. (SOC-04)	153	Li, W. (OPB-02)	125
Lew, W. (BOC-11)	26	Li, W. (WOA-13)	189
Lew, W. (CPB-12)	45	Li, W. (WPA-04)	197
Lew, W. (DPA-07)	54	Li, W. (YPA-08)	219
Lewis, C.J. (EPB-10)	69	Li, X. (CPB-07)	45
Li, A. (WPA-04)	197	Li, X. (MOA-03)	106
Li, B. (JOA-08)	91	Li, X. (MOA-11)	107
Li, C. (APA-01)	14	Li, X. (NOA-02)	113
Li, C. (COD-02)	37	Li, X. (OPB-12)	126
Li, C. (CPB-11)	45	Li, Y. (BOA-02)	20
Li, C. (DPC-04)	59	Li, Y. (COA-03)	31
Li, C. (EOB-02)	63	Li, Y. (CPA-15)	43
Li, C. (JOA-06)	91	Li, Y. (DOA-04)	46
Li, C. (MOA-07)	106	Li, Y. (DPA-10)	55
Li, C. (OPB-11)	126	Li, Y. (FPA-10)	73
Li, D. (GPA-03)	75	Li, Y. (GPA-13)	76
Li, D. (HPA-06)	82	Li, Y. (HPA-06)	82
Li, D. (XPC-02)	211	Li, Y. (HPA-15)	83
Li, F. (LOA-03)	101	Li, Y. (HPA-18)	83
Li, F. (LPA-11)	104	Li, Y. (JOA-02)	91
Li, G. (KPA-20)	100	Li, Y. (JOA-08)	91
Li, G. (LOA-02)	101	Li, Y. (JPB-09)	95
Li, G. (MOA-16)	107	Li, Y. (LPA-10)	104
Li, H. (MPB-11)	113	Li, Y. (SB-03)	3
Li, H. (NPA-09)	118	Li, Y. (SE-06)	6
Li, H. (TOA-05)	164	Li, Y. (SOD-07)	156
Li, J. (COC-07)	36	Li, Y. (VPA-11)	185
Li, J. (COC-11)	37	Li, Y. (VPB-13)	187
Li, J. (IPA-07)	88	Li, Y. (WPA-01)	196
Li, J. (JOA-02)	91	Li, Y. (XOA-03)	202
Li, J. (LPA-14)	104	Li, Y. (ZPA-04)	222
Li, J. (WPA-03)	196	Li, Y.W. (FOA-02)	70
Li, J. (WPA-08)	197	Li, Y.Y. (OPB-04)	125
Li, K. (BOC-03)	24	Li, Z. (AOA-04)	9
Li, K. (JPA-11)	93	Li, Z. (AOA-05)	9
Li, K. (MPB-05)	112	Li, Z. (BOD-04)	27
Li, K. (MPB-09)	113	Li, Z. (FPA-05)	72
Li, K. (POB-07)	129	Li, Z. (FPA-10)	73
Li, L. (COC-06)	35	Li, Z. (IOB-05)	86
Li, L. (JOA-02)	91	Li, Z. (IPB-07)	90
Li, L. (JOA-10)	91	Li, Z. (LOA-12)	102
Li, L. (MOB-11)	109	Li, Z. (LPA-04)	103
Li, L. (VPB-11)	187	Li, Z. (LPA-05)	103
Li, M. (APA-01)	14	Li, Z. (LPA-12)	104
Li, M. (CPB-11)	45	Li, Z. (MPB-11)	113
Li, M. (OPB-11)	126	Li, Z. (ROB-05)	148
Li, M. (SA-01)	1	Li, Z. (SF-04)	7
Li, M. (SA-02)	2	Li, Z. (TPB-03)	172
Li, M.T. (PPD-04)	137	Li, Z. (UPA-02)	177
Li, P. (AOA-03)	9	Li, Z. (VOB-06)	181
Li, P. (COC-09)	36	Li, Z. (VPB-09)	187
Li, P. (COD-01)	37	Li, Z. (XOA-03)	202
Li, P. (PPC-04)	135	Li, Z. (XPC-02)	211
Li, P. (XOB-07)	204	Li, Z. (YOB-03)	217
Li, Q. (GPB-02)	78	Liang, H. (DOA-06)	47
Li, Q. (WOC-07)	193	Liang, J. (BOA-11)	22
Li, R. (OPB-12)	126	Liang, J. (CPB-10)	45
Li, S. (BOB-13)	24	Liang, P. (EOB-14)	65
Li, S. (COA-12)	32	Liang, P. (ROA-04)	146
Li, S. (CPA-07)	42	Liang, X. (CPA-02)	41
Li, S. (GPA-01)	75	Liang, X. (GPB-11)	79
Li, S. (IPB-03)	89	Liang, X. (HPA-20)	84
Li, S. (JPA-05)	93	Liang, X. (IPA-03)	87

*Best student presentation award finalist

Liang, X. (IPB-09).....	90	Littlehales, M. (COB-08).....	34
Liang, X. (IPB-12).....	90	Litvinenko, A. (NOB-06).....	116
Liang, Z. (MOA-12).....	107	Litvinenko, A. (POA-03).....	126
Liao, B. (BPA-05).....	28	Litvinenko, A. (SPA-14).....	163
Liao, C. (EPA-12).....	67	Litzius, K. (COB-01).....	32
Liao, C. (MOA-07).....	106	Litzius, K. (COE-10).....	41
Liao, C. (MPB-05).....	112	Liu, B. (DPA-10).....	55
Liao, C. (MPB-09).....	113	Liu, B. (MOB-01).....	108
Liao, C. (ZPA-12).....	223	Liu, C. (GPA-01).....	75
Liao, L. (XOD-12).....	208	Liu, C. (GPA-14).....	76
Liao, T. (MOA-07).....	106	Liu, C. (GPA-15).....	77
Liao, T. (QOA-08).....	139	Liu, C. (GPA-17).....	77
Liao, W. (BOA-02).....	20	Liu, C. (GPB-06).....	78
Liao, X. (WOB-08).....	191	Liu, C. (GPB-10).....	79
Liedtke, A. (COE-09).....	40	Liu, C. (IOA-05).....	84
Ligmajer, F. (SOD-02).....	155	Liu, C. (IOB-06).....	86
Lill, J. (QOA-05).....	138	Liu, C. (IPB-02).....	89
Lim, E. (APC-04).....	19	Liu, C. (IPB-03).....	89
Lim, G.J. (BOC-11).....	26	Liu, C. (IPB-04).....	89
Lim, G.J. (DPA-07).....	54	Liu, C. (JOA-08).....	91
Lim, M. (GPA-09).....	76	Liu, C. (JPA-03).....	92
Lim, M. (GPA-10).....	76	Liu, C. (JPA-04).....	93
Lim, M. (GPA-18).....	77	Liu, C. (JPA-08).....	93
Lim, M. (GPB-07).....	78	Liu, C. (JPA-12).....	93
Lim, M. (GPB-08).....	78	Liu, C. (JPA-15).....	94
Lim, M. (GPB-09).....	78	Liu, C. (JPB-02).....	94
Lim, M. (JPA-13).....	94	Liu, C. (JPB-12).....	96
Lim, M. (JPB-07).....	95	Liu, C. (MPA-13).....	111
Lim, M. (KPA-13).....	99	Liu, D. (LPA-17).....	105
Lim, P. (QOB-13).....	141	Liu, F. (GPA-03).....	75
Lim, P. (QPB-01).....	144	Liu, F. (GPA-04).....	75
Lim, S. (AOB-06).....	11	Liu, F. (WPB-05).....	198
Lim, S. (APB-12).....	18	Liu, G. (HOA-05).....	80
Lim, S. (NPA-08).....	118	Liu, G. (HPA-20).....	84
Lim, Y. (DOC-05).....	50	Liu, G. (IPA-03).....	87
Lima Jr., E. (EOA-05).....	61	Liu, H. (OOB-05).....	121
Lin, C. (BOC-03).....	24	Liu, H. (OOB-07).....	122
Lin, C. (VPA-14).....	185	Liu, H. (QPA-07).....	143
Lin, C. (XPC-04).....	211	Liu, J. (BPA-06).....	28
Lin, D.J. (APB-12).....	18	Liu, J. (DOE-05).....	53
Lin, H. (JPB-09).....	95	Liu, J. (DPB-03).....	56
Lin, H. (LPA-10).....	104	Liu, J. (HOA-05).....	80
Lin, J. (SOA-04).....	150	Liu, J. (JPB-08).....	95
Lin, J.G. (UOA-07).....	175	Liu, J. (SOC-05).....	153
Lin, K. (SPA-06).....	162	Liu, L. (BOA-03).....	20
Lin, K. (UPA-11).....	179	Liu, L. (FOA-05).....	70
Lin, L. (FPA-16).....	74	Liu, L. (FPA-08).....	73
Lin, P. (WPA-06).....	197	Liu, L. (LOA-08).....	102
Lin, T. (APC-13).....	20	Liu, L. (LPA-20).....	105
Lin, T. (COC-02).....	35	Liu, L. (OOB-01).....	121
Lin, T. (ROB-02).....	148	Liu, L. (WOC-10).....	193
Lin, X.L. (APA-11).....	16	Liu, L. (WPB-13).....	199
Lin, X.L. (NOA-06).....	114	Liu, L. (XOB-06).....	204
Lin, Y. (BOC-01).....	24	Liu, M. (GPB-12).....	79
Lin, Y. (COC-01).....	35	Liu, P. (QPB-14).....	146
Lin, Y. (COC-02).....	35	Liu, Q. (XOA-03).....	202
Lin, Y. (CPB-10).....	45	Liu, R. (TPC-03).....	173
Lin, Y. (DOA-06).....	47	Liu, S. (COA-12).....	32
Lin, Y. (DOB-04).....	48	Liu, S. (CPB-04).....	44
Lin, Y. (DPB-07).....	57	Liu, S. (GPB-10).....	79
Lin, Y. (EPA-02).....	66	Liu, S. (MPA-13).....	111
Lin, Y. (OOB-11).....	122	Liu, S. (MPA-14).....	111
Lin, Y. (XPC-11).....	212	Liu, S. (OPB-08).....	125
Lind, E. (LOA-06).....	101	Liu, T. (QPB-02).....	144
Lind, E. (WOD-10).....	195	Liu, W. (AOA-03).....	9
Lindner, J. (SOC-10).....	154	Liu, W. (IPA-02).....	87
Lindner, J. (SOD-01).....	155	Liu, W. (IPB-03).....	89
Lindner, J. (SOE-11).....	158	Liu, W. (QOA-07).....	139
Lindner, J. (SPA-09).....	162	Liu, W. (WPA-01).....	196
Lindner, M. (SOC-13).....	154	Liu, W. (WPA-10).....	197
Lindner, M. (SOD-08).....	156	Liu, X. (COA-13).....	32
Lindner, M. (SPA-11).....	163	Liu, X. (HPA-09).....	82
Lindner, M. (SPA-17).....	163	Liu, X. (WOC-09).....	193
Lintzeris, A. (COE-05).....	39	Liu, X. (WOC-12).....	193
Liparo, M. (ROA-07).....	147	Liu, X. (WPC-03).....	200
Lisovenko, M. (SB-03).....	3	Liu, Y. (BOA-02).....	20
Littlehales, M. (COB-07).....	33	Liu, Y. (DOA-04).....	46

*Best student presentation award finalist

Mahata, D. (VPB-07)	186	Martins, L. (SG-03)	8
Mahendiran, R. (UOA-06)	175	Martins, L. (TOB-08)	166
Mahmoudi, A. (GOA-01)	74	Martins, L. (TPA-08)	171
Majidi, M.A. (DPC-07)	59	Martins, M. (TOB-16)	167
Majima, Y. (XOD-02)	207	Martins, M. (XOA-08)	202
Major, M. (XOA-07)	202	Marty, A. (COC-11)	37
Makarova, M. (YPA-02)	218	Marty, A. (COD-09)	38
Makartsou, U. (SPA-12)	163	Marty, A. (COE-08)	40
Makartsou, U. (TOC-08)	169	Marty, A. (CPB-13)	45
Makihara, K. (KPA-22)	100	Marty, A. (DOB-11)	49
Makiuchi, T. (DOA-07)	47	Maruyama, T. (KPA-01)	98
Makiuchi, T. (SB-01)	3	Marzari, N. (SOE-08)	158
Makiuchi, T. (TOB-17)	168	Masago, A. (UOB-10)	177
Makovec, D. (WOD-03)	194	Mascaraque, A. (XOD-14)	209
Makuta, H. (WPB-07)	199	Masciocchi, G. (XOB-07)	204
Malagò, P. (APA-09)	16	Masell, J. (COB-09)	34
Mali, B. (TPB-10)	172	Masell, J. (YOA-06)	215
Malinowski, G. (BOD-02)	26	Masisi, L. (HPA-04)	81
Malinowski, G. (NOA-06)	114	Maspero, F. (SG-05)	8
Malinowski, G. (SOA-01)	149	Massouras, M. (SB-05)	3
Malinowski, G. (SOA-04)	150	Massouras, M. (SOC-08)	153
Mallick, S. (COA-02)	31	Masuda, H. (AOB-01)	11
Mamiya, H. (VOA-07)	180	Masuda, I. (MOA-14)	107
Mamiya, H. (YPA-06)	219	Masuda, I. (MOB-06)	108
Man, J. (ZOA-14)	221	Masuda, K. (AOA-04)	9
Man, O. (XOB-01)	203	Masuda, K. (AOA-12)	10
Manceau, S. (POB-05)	129	Masuda, K. (APA-02)	15
Mandal, K. (POA-07)	127	Masuda, K. (APA-07)	15
Mandal, R. (DOB-02)	48	Masuda, K. (BOB-13)	24
Mandal, R. (TPB-01)	171	Masuda, K. (DOB-05)	48
Mandriole, F. (MOA-04)	106	Masuda, K. (DPA-08)	54
Mandru, A. (CPA-14)	43	Masumoto, C. (PPB-11)	134
Mandziak, A. (NOA-01)	113	Masumoto, H. (QOB-11)	141
Mandziak, A. (UOA-05)	175	Masumoto, H. (RPA-04)	149
Mangin, S. (APB-03)	16	Masumoto, H. (RPA-05)	149
Mangin, S. (BOD-02)	26	Masumoto, H. (XPB-02)	209
Mangin, S. (NOA-06)	114	Masumoto, H. (XPC-05)	211
Mangin, S. (SOA-01)	149	Masuzawa, K. (YPA-04)	218
Mangin, S. (SOA-04)	150	Mateo-Alonso, A. (DOC-03)	50
Mangin, S. (SPA-05)	161	Mathew, A. (NPA-11)	118
Manikketh, M. (POC-06)	131	Matinaga, F.M. (TOB-16)	167
Manivel Raja, M. (TOB-12)	167	Matos, F. (TOC-09)	169
Mannen, T. (PPB-05)	133	Matsubara, Y. (EPA-01)	65
Mansell, R. (COB-02)	33	Matsui, H. (DPB-10)	57
Mansell, R. (DOE-04)	53	Matsuki, H. (KPA-05)	98
Mansell, R. (DOE-06)	53	Matsumori, H. (MOA-02)	105
Mansell, R. (TOA-06)	164	Matsumoto, H. (MPA-09)	110
Mansell, R. (TPB-12)	173	Matsumoto, H. (VOA-02)	179
Mao, H. (BOA-10)	21	Matsumoto, H. (VOB-05)	181
Mao, J. (JPB-04)	95	Matsumoto, N. (TOB-07)	166
Mao, Y. (JPA-10)	93	Matsumoto, R. (DOE-01)	52
Marathe, M. (WOD-12)	196	Matsumoto, Y. (XPA-11)	214
Marcand, T.A. (FPA-13)	73	Matsumoto, Y. (XPB-12)	210
Marcano, L. (EOA-01)	61	Matsumura, T. (YPA-02)	218
Marcano, L. (EOA-10)	62	Matsuo, M. (DPC-12)	60
Marcano, L. (SC-06)	5	Matsuo, T. (BOA-07)	21
Marchiori, E. (YOB-05)	217	Matsushima, Y. (ZPA-06)	222
Margueron, S. (QOB-03)	140	Matsuura, M. (APB-09)	17
Marignetti, F. (GPB-02)	78	Matsuura, M. (POA-13)	128
Markó, D. (SPA-06)	162	Matsuura, M. (WOC-02)	192
Markó, D. (TOB-13)	167	Matsuura, Y. (WPC-10)	201
Markou, A. (COD-08)	38	Matsuzaka, M. (APA-05)	15
Markovic, D. (SG-03)	8	Matsuzaka, M. (ZPA-06)	222
Markovic, D. (TOB-03)	165	Mattei, J. (PPB-04)	133
Marrows, C. (SOB-06)	151	Mattei, J. (WOD-02)	194
Martin Valderrama, C. (DOC-12)	51	Mattei, J. (WPC-04)	200
Martín-Cid, A. (WOD-08)	195	Mattheis, R. (SPA-09)	162
Martín-Cid, A. (WOD-09)	195	Matzer, M. (UPA-07)	178
Martin-Garcia, B. (COE-03)	39	Maucha, L. (SOB-01)	151
Martin-Garcia, B. (DOC-03)	50	Mausner, N.J. (SOC-04)	153
Martin-González, M. (XOC-02)	205	Mavropoulos, P. (COE-09)	40
Martin-Rubio, C. (XOC-02)	205	Mayoh, D. (COB-01)	32
Martin, F. (COE-09)	40	Mayoh, D. (COE-10)	41
Martin, M. (COA-11)	32	Mayr, S. (SOC-10)	154
Martin, V. (VOB-03)	181	Mazarío, E. (SC-02)	4
Martins, L. (NOB-05)	115	Maziewski, A. (XOB-10)	205
Martins, L. (SG-02)	8	Maznichenko, I.V. (DOC-03)	50

*Best student presentation award finalist

Mazumdar, C. (UPA-09)	178	Mio, S. (PPC-03)	135
Mazza, A. (COC-09)	36	Mio, S. (PPC-12)	136
Mazza, L. (NOB-08)	116	Miroshkina, O. (QOA-09)	139
Mazzoli, C. (YOA-03)	215	Misawa, T. (APA-05)	15
McCann, S. (SPA-16)	163	Mishra, P.K. (BOC-04)	25
McCarter, M. (YOA-03)	215	Mishra, R. (NOB-01)	115
McCauley, M. (XOA-09)	203	Mitani, S. (AOA-05)	9
McClelland, J.J. (NOB-11)	116	Mitani, S. (AOA-09)	10
McCloskey, P. (VOA-10)	180	Mitani, S. (APA-07)	15
McCloskey, P. (XOB-09)	205	Mitani, S. (APA-10)	16
McCord, J. (POC-01)	130	Mitani, S. (DOC-06)	50
McDonald, A.H. (COC-01)	35	Mitani, S. (DPA-06)	54
McEleney, C.A. (SOC-03)	153	Mitani, S. (DPA-11)	55
McHenry, M. (SF-06)	7	Mitani, S. (DPC-09)	59
McMorran, B. (YOA-03)	215	Mitarai, H. (IOA-01)	84
McNamee, C.E. (XOD-13)	209	Mitarai, H. (WPA-02)	196
Medina Dueñas, J.E. (COC-07)	36	Mitsuda, A. (DPB-15)	58
Medwal, R. (DPA-09)	55	Mitsuda, H. (LOA-04)	101
Medwal, R. (NPA-11)	118	Mitsue, M. (XPC-03)	211
Meer, H. (BOB-05)	23	Mitsui, S. (KPA-09)	99
Meer, H. (BOC-06)	25	Mitsui, T. (BOB-13)	24
Meer, H. (SOF-03)	159	Mitsumata, C. (TPC-02)	173
Mehta, U.M. (EPB-10)	69	Mitsumata, C. (YOA-10)	216
Mei, Z. (OPB-10)	125	Mitsumata, C. (YPA-04)	218
Mendisich, S. (SOB-01)	151	Mitsuya, K. (HOA-07)	81
Menéndez, E. (ROA-03)	146	Miura, A. (APA-03)	15
Meng, F. (MPB-06)	112	Miura, A. (DOA-05)	46
Meng, F. (NOA-05)	114	Miura, T. (POA-06)	127
Meng, F. (SG-04)	8	Miura, Y. (AOA-05)	9
Meng, H. (DPA-10)	55	Miura, Y. (AOA-12)	10
Meng, K. (APA-01)	14	Miura, Y. (APA-07)	15
Meng, K. (CPB-11)	45	Miura, Y. (BOB-13)	24
Meng, K. (DPB-03)	56	Miura, Y. (DPA-06)	54
Meng, K. (DPC-04)	59	Miura, Y. (DPA-08)	54
Meng, K. (OPB-11)	126	Miura, Y. (UOB-07)	176
Meng, W. (VPA-11)	185	Miura, Y. (WOD-05)	195
Meng, Y. (SOC-01)	152	Miura, Y. (WPC-09)	201
Menniti, M. (ZOA-04)	220	Miura, Y. (XOA-06)	202
Mentink, J. (COA-10)	32	Miwa, S. (BOA-01)	20
Meo, A. (BPA-07)	29	Miwa, S. (BOA-07)	21
Meo, A. (PPD-03)	137	Miwa, S. (DOD-02)	51
Meo, A. (TOC-05)	168	Miwa, S. (DOD-05)	52
Meo, A. (TPC-05)	173	Miyahara, S. (KPA-05)	98
Merbouche, H. (SOD-13)	157	Miyaji, K. (MPA-06)	110
Mercadier, L. (SOF-05)	160	Miyaji, K. (SG-06)	8
Mercer, T. (SPA-16)	163	Miyaji, K. (VPB-14)	187
Mercurio, G. (SOF-05)	160	Miyakawa, M. (UOB-10)	177
Mertig, I. (COB-10)	34	Miyake, T. (SA-06)	2
Mertig, I. (DOC-03)	50	Miyamoto, K. (APA-02)	15
Mewes, C. (COC-09)	36	Miyamoto, K. (DOB-05)	48
Mewes, T. (COC-09)	36	Miyamoto, M. (QPB-03)	144
Mewes, T. (TOB-16)	167	Miyanaga, Y. (EPA-01)	65
Meyer, D. (QOA-01)	138	Miyashita, H. (QOB-13)	141
Mezani, S. (FPA-13)	73	Miyashita, H. (QPB-01)	144
Mezani, S. (SE-05)	6	Miyata, R. (MPA-06)	110
Mhaskar, A. (EPB-07)	68	Miyatake, T. (VOA-07)	180
Mi, W. (CPB-08)	45	Miyazaki, R. (KPA-16)	100
Mi, W. (HOA-04)	80	Miyazaki, S. (WOA-06)	189
Mi, W. (IOB-03)	86	Miyazaki, T. (CPB-06)	44
Mi, W. (POB-09)	129	Miyazaki, T. (MOA-05)	106
Mi, W. (XOA-11)	203	Miyazaki, T. (MPA-04)	110
Mi, W. (ZOA-07)	220	Miyazaki, T. (QPB-10)	145
Miao, G. (COC-10)	36	Miyazaki, T. (TPB-04)	172
Miao, X. (QOA-08)	139	Miyazaki, T. (VOB-14)	183
Michalicka, J. (XOB-01)	203	Miyazaki, T. (VPB-08)	186
Michez, L. (BOA-09)	21	Miyazawa, Y. (POA-06)	127
Michon, M. (LOA-02)	101	Mizrahi, A. (NOB-04)	115
Micica, M. (COD-09)	38	Mizrahi, A. (SG-03)	8
Miedema, P.S. (SOF-05)	160	Mizrahi, A. (TOB-03)	165
Mihajlović, G. (YOA-02)	214	Mizuguchi, M. (TPC-02)	173
Mikami, S. (VPB-08)	186	Mizuguchi, M. (XOB-03)	204
Mikami, T. (POA-10)	127	Mizukami, S. (APA-06)	15
Miki, S. (CPA-01)	41	Mizukami, S. (DOB-02)	48
Milde, P. (COC-10)	36	Mizukami, S. (SOD-11)	156
Min, J. (GPB-03)	78	Mizukami, S. (WOD-05)	195
Minamisawa, T. (MPA-06)	110	Mizuno, T. (MPA-05)	110
Minuti, A. (EPA-07)	66	Mizuno, T. (SF-05)	7

*Best student presentation award finalist

Mizuochi, N. (POB-02)	128	Moriyama, T. (YOA-01)	214
Mizutori, Y. (YOA-10)	216	Moriyoshi, C. (VOA-03)	179
Mizutori, Y. (YPA-04)	218	Morley, N. (VOA-01)	179
Mizzell, G. (TPC-01)	173	Morley, N. (WOD-06)	195
Mlynczak, E. (NOA-01)	113	Morley, S. (YOA-03)	215
Mo, C. (IPB-05)	89	Mortazavizadeh, S. (KPA-21)	100
Moalic, M. (TOC-08)	169	Motomatsu, T. (MPA-08)	110
Mochizuki, M. (COA-08)	31	Motomura, T. (WPA-09)	197
Mochizuki, S. (DPB-11)	57	Motozuka, S. (VPA-04)	184
Modak, R. (AOB-01)	11	Motozuka, S. (VPA-10)	184
Modak, R. (DOC-04)	50	Motyčková, L. (XOA-01)	201
Mogi, Y. (ZPA-03)	221	Moukhader, R. (NOB-02)	115
Mohamad-Assaad, M. (BOB-05)	23	Moutafis, C. (COA-03)	31
Mohammed, O.A. (IPA-08)	88	Moutafis, C. (CPA-15)	43
Mohan, J.R. (NPA-11)	118	Moya, C. (SC-01)	4
Mohand		Mozhikunnath Das, S. (TPB-12)	173
Oussaid, W.M. (MOB-05)	108	Msiska, R. (COA-09)	31
Mohanty, J.R. (SPA-03)	161	Mu, J. (KOA-02)	97
Mohapatra, J. (QPB-14)	146	Mu, Z. (BOA-05)	21
Mokrousov, Y. (APC-02)	19	Mudgal, R. (AOB-10)	12
Mokrousov, Y. (COC-09)	36	Muduli, P. (DPC-10)	59
Mokrousov, Y. (COE-09)	40	Muduli, P.K. (AOB-10)	12
Mokrousov, Y. (DPC-11)	60	Muduli, P.K. (NOB-10)	116
Mokrousov, Y. (SOF-03)	159	Muduli, P.K. (POA-03)	126
Molina-Luna, L. (EOA-07)	62	Muela, A. (EOA-01)	61
Molina-Luna, L. (QOA-09)	139	Mugyema, M. (LOA-07)	102
Molina-Luna, L. (WOA-10)	189	Mukai, S. (VPA-04)	184
Molina-Luna, L. (WOB-08)	191	Mukai, S. (VPA-10)	184
Momma, R. (DOB-02)	48	Mukhachev, R.D. (QPA-15)	143
Mondal, R. (DPC-13)	60	Mukhopadhyay, A. (SOC-07)	153
Mondal, R. (TOB-05)	166	Muliawan, W. (XOC-08)	206
Montero, C.M. (WOD-03)	194	Mulkers, J. (COA-09)	31
Montero, C.M. (WOD-15)	196	Müller, J. (OOB-09)	122
Moody, S.H. (COB-07)	33	Mullurkara, S. (UOA-02)	174
Moody, S.H. (COB-08)	34	Muneta, I. (COC-03)	35
Mook, A. (SOE-09)	158	Muneyama, E. (EPB-04)	68
Moon, J. (COD-02)	37	Muni, B. (WOB-01)	190
Moon, J. (EPA-13)	67	Muñoz	
Moon, K. (TPA-01)	170	Rodriguez, C. (WOD-08)	195
Moore, T.A. (CPA-05)	42	Murakami, K. (IOB-10)	87
Moore, T.A. (QOB-07)	140	Murakami, R. (OPA-03)	124
Moorsom, T. (BOB-11)	23	Murakami, T. (XPB-01)	209
Moorsom, T. (OOB-15)	123	Murakami, Y. (COB-06)	33
Moorsom, T. (XOA-09)	203	Murakami, Y. (ROA-06)	147
Mopoung, K. (XPA-07)	213	Murakami, Y. (XOD-02)	207
Mora-Hernández, A. (POC-04)	130	Muramatsu, K. (FOA-05)	70
Moradi, F. (NOB-03)	115	Muramatsu, K. (POA-14)	128
Moradi, F. (TPA-09)	171	Muramatsu, K. (PPC-11)	136
Morales		Muramatsu, K. (TPC-04)	173
Fernandey, P. (NOA-01)	113	Murapaka, C. (CPA-17)	43
Morales, M.d. (SC-02)	4	Murapaka, C. (DPC-09)	59
Morassi, M. (COD-04)	37	Murapaka, C. (DPC-13)	60
Morel, L. (MOB-02)	108	Murapaka, C. (TOB-05)	166
Morel, R. (EOB-01)	63	Murapaka, C. (TOB-12)	167
Moreno		Murapaka, C. (XPA-10)	214
Maldonado, A.C. (EOA-05)	61	Murmu, P. (DPA-09)	55
Mori, K. (PPB-05)	133	Muroga, S. (POA-10)	127
Mori, K. (QOB-13)	141	Muroga, S. (PPB-07)	133
Mori, K. (QPB-01)	144	Muroga, S. (SPA-04)	161
Mori, K. (SPA-01)	161	Muroga, S. (TPC-08)	174
Mori, M. (SPA-15)	163	Murphy, M. (EOB-14)	65
Mori, N. (VPA-04)	184	Musekamp, J. (WOB-05)	190
Mori, N. (VPA-10)	184	Mushtuk, P. (XPA-08)	213
Mori, Y. (WPB-03)	198	Musumeci, S. (SF-03)	7
Mori, Y. (WPB-08)	199	Muta, H. (QPB-09)	145
Mori, Y. (XPA-01)	212	Muto, H. (PPB-11)	134
Morii, K. (WOC-05)	192	Myrovali, E. (SC-02)	4
Morioka, N. (POB-02)	128		
Morishita, H. (POB-02)	128		
Morita, T. (BPA-09)	29		
Moriwaki, T. (XPC-01)	211		
Moriyama, T. (BOA-10)	21		
Moriyama, T. (BPA-11)	29		
Moriyama, T. (BPA-12)	29		
Moriyama, T. (DPB-11)	57		
Moriyama, T. (QPB-08)	145		
Moriyama, T. (SPA-08)	162		

- N -

N/Diaye, A. (SOA-02)	150
N/Diaye, A. (XOA-07)	202
Nabei, Y. (CPB-05)	44
Nabialek, A. (XOB-05)	204
Nadal, M.S. (EOA-05)	61
Naden, A. (XOB-04)	204
Nadvornik, L. (DOA-11)	47

*Best student presentation award finalist

Nagai, A. (MOB-06)	108	Nakatsuka, S. (XPA-01)	212
Nagai, K. (WPA-09)	197	Nakayama, H. (DOE-01)	52
Nagai, K. (WPA-15)	198	Nakazawa, K. (DOC-07)	50
Nagai, K. (WPB-01)	198	Nakazawa, K. (XPC-01)	211
Nagaki, T. (VPA-10)	184	Naletov, V. (SOD-13)	157
Nagalakshmi, R. (QPA-11)	143	Nallan, S. (AOB-02)	11
Nagano, K. (KOA-03)	97	Nallan, S. (OOB-04)	121
Naganuma, D. (KPA-15)	99	Nam, B. (MPA-02)	110
Nagaoka, R. (YPA-04)	218	Namai, A. (POA-15)	128
Nagaosa, N. (TOA-10)	164	Namsaraev, Z. (APC-01)	18
Nagata, S. (TOB-15)	167	Namsaraev, Z. (APC-05)	19
Nagata, S. (VPA-04)	184	Namsaraev, Z. (XPC-08)	212
Naidjate, M. (FOA-12)	71	Nan, T. (NPA-15)	119
Naito, T. (DOA-08)	47	Naoc, M. (VPB-14)	187
Nakagawa, A. (TPC-08)	174	Nara, T. (EOB-10)	64
Nakagawa, A. (XOC-10)	206	Nara, T. (PPC-06)	135
Nakagawa, H. (EPB-02)	68	Narabayashi, R. (WPC-06)	200
Nakagawa, H. (EPB-03)	68	Narabayashi, R. (WPC-08)	200
Nakagawa, H. (EPB-05)	68	Narahara, H. (VPA-04)	184
Nakagawa, S. (MOA-05)	106	Narahara, H. (VPA-10)	184
Nakagawa, S. (NPA-06)	118	Narducci, D. (QOA-02)	138
Nakagawa, T. (QPB-06)	144	Narita, H. (ZPA-01)	221
Nakagawa, T. (QPB-09)	145	Narita, T. (KPA-10)	99
Nakai, T. (XOD-06)	208	Narita, T. (KPA-12)	99
Nakajima, K. (SOC-14)	154	Narita, T. (KPA-16)	100
Nakajima, M. (SOF-06)	160	Narita, T. (MPB-01)	112
Nakamura, K. (FOA-06)	70	Narkowicz, R. (SOC-10)	154
Nakamura, K. (HOA-02)	80	Naruse, T. (VOB-09)	182
Nakamura, K. (HOA-03)	80	Nasr, A. (GOA-05)	75
Nakamura, K. (HOA-07)	81	Naud, C. (EOB-01)	63
Nakamura, K. (HOA-08)	81	Nava Antonio, G. (SPA-05)	161
Nakamura, K. (IOA-07)	85	Navarrete, B. (EOB-14)	65
Nakamura, K. (MOB-07)	109	Navarrete, B. (ROA-04)	146
Nakamura, T. (PPD-07)	137	Navarro-Quezada, A. (UPA-07)	178
Nakamura, T. (UPA-06)	178	Navas, D. (XOC-02)	205
Nakamura, T. (WOA-01)	188	Navratil, J. (COC-05)	35
Nakamura, Y. (NPA-11)	118	Neenu Lekshmi, P. (UPA-01)	177
Nakamura, Y. (OPA-06)	124	Nell, M. (IOA-04)	84
Nakamura, Y. (VPB-04)	186	Nembach, H. (NOA-07)	114
Nakamura, Y. (XPA-02)	213	Nemoto, K. (IOB-10)	87
Nakane, J.J. (BOD-10)	27	Nepal, B. (COC-09)	36
Nakanishi, K. (APA-02)	15	Neu, V. (TOC-06)	169
Nakanishi, K. (DOB-05)	48	Neugebauer, N. (XOC-09)	206
Nakano, A. (XPA-12)	214	Newman, D.G. (SOA-02)	150
Nakano, M. (VPB-05)	186	Ney, A. (SOC-10)	154
Nakano, M. (WPA-09)	197	Ney, A. (UPA-07)	178
Nakano, M. (WPA-13)	197	Ng, S. (APB-12)	18
Nakano, M. (WPA-15)	198	Ng, V. (XOD-10)	208
Nakano, M. (WPB-01)	198	Nguedjang, S. (MOB-02)	108
Nakano, M. (WPB-09)	199	Nguyen, M. (HPA-05)	82
Nakano, M. (WPC-06)	200	Nguyen, M. (MPA-04)	110
Nakano, M. (WPC-08)	200	Nguyen, M. (VOB-14)	183
Nakano, M. (XPA-11)	214	Nguyen, T. (SA-02)	2
Nakano, M. (XPB-12)	210	Nguyen, T.A. (OPA-05)	124
Nakano, T. (AOA-11)	10	Nguyen, V. (NOA-05)	114
Nakarmi, P. (TOB-16)	167	Nhalil, H. (POC-02)	130
Nakata, K. (TPA-06)	171	Ni, C. (WPB-06)	199
Nakatani, R. (BOB-08)	23	Ni, F. (IPB-07)	90
Nakatani, R. (BOB-09)	23	Ni, F. (LPA-05)	103
Nakatani, R. (BOB-12)	24	Niapos, E. (ROA-03)	146
Nakatani, R. (QPB-12)	145	Nicolas, A. (EOB-01)	63
Nakatani, R. (ROA-06)	147	Nicolas, H. (POC-04)	130
Nakatani, R. (XOC-10)	206	Nicolas, H. (POC-11)	131
Nakatani, T. (AOA-02)	9	Nidhi, K. (MOA-07)	106
Nakatani, T. (AOA-05)	9	Niehoff, T. (QOA-09)	139
Nakatani, T. (POC-06)	131	Niguchi, N. (HOA-01)	80
Nakatani, T. (POC-09)	131	Niguchi, N. (IOB-01)	85
Nakatani, T. (POC-10)	131	Nii, K. (XPC-01)	211
Nakatani, Y. (BOA-04)	20	Niimi, M. (QPB-04)	144
Nakatani, Y. (CPA-08)	42	Niimi, Y. (BOA-08)	21
Nakatani, Y. (GOA-04)	74	Niimi, Y. (COE-07)	40
Nakatani, Y. (TPC-09)	174	Nikitin, A.A. (SOD-12)	156
Nakatsuji, S. (BOA-04)	20	Ning, S. (JOA-12)	92
Nakatsuji, S. (BOA-07)	21	Nirmala, R. (QOA-12)	139
Nakatsuji, S. (YOB-04)	217	Nirmala, R. (QPA-01)	142
Nakatsuji, S. (ZPA-08)	222	Nishida, M. (XPC-06)	211

*Best student presentation award finalist

Nishida, S. (OOA-08)	120	Obinata, S. (DPB-02)	56
Nishii, J. (APA-05)	15	Obinata, S. (DPB-15)	58
Nishikawa, D. (SOA-09)	150	Oda, K. (MOA-08)	106
Nishikawa, M. (OPA-06)	124	Odagawa, T. (CPB-06)	44
Nishikawa, T. (POB-02)	128	Odawara, S. (PPD-09)	137
Nishikawa, T. (WPC-12)	201	Oezelt, H. (SA-06)	2
Nishikura, R. (OOA-08)	120	Oezelt, H. (SOB-03)	151
Nishimura, T. (DPA-16)	56	Oezelt, H. (TOC-11)	169
Nishina, R. (QPB-10)	145	Oezelt, H. (TOC-12)	170
Nishio-Hamane, D. (BOA-07)	21	Oezelt, H. (WOA-03)	188
Nishitani, T. (CPA-20)	43	Oezelt, H. (WOC-13)	194
Nishitsuji, J. (POA-12)	127	Ogawa, K. (KPA-10)	99
Nishitsuji, J. (VOB-10)	182	Ogawa, K. (KPA-12)	99
Nita, P. (UOA-05)	175	Ogawa, K. (KPA-16)	100
Nitta, H. (MOA-05)	106	Ogawa, K. (MPB-01)	112
Nitta, J. (APB-07)	17	Ogawa, K. (XOD-09)	208
Nitta, J. (BOC-07)	25	Ogawa, M. (APC-08)	19
Nitta, J. (NPA-13)	119	Ogawa, M. (DPB-08)	57
Niu, S. (HPA-17)	83	Ogawa, T. (APA-03)	15
Niu, S. (IPA-10)	88	Ogawa, T. (EOA-11)	63
Niu, S. (IPB-07)	90	Ogawa, T. (NPA-01)	117
Niu, S. (IPB-08)	90	Ogawa, T. (XOC-04)	205
Niu, S. (LPA-05)	103	Ogawa, T. (XOD-09)	208
Niu, Y. (BOD-03)	26	Ogawa, T. (XOD-13)	209
Niwa, S. (PPC-13)	136	Ogawa, T. (XPC-03)	211
Nlebedim, C.I. (GPB-15)	79	Ogawa, Y. (DPB-05)	56
Nlebedim, C.I. (WOC-09)	193	Ogawa, Y. (VOA-09)	180
Nlebedim, C.I. (WOC-12)	193	Ogishima, N. (POA-14)	128
Node, E. (WOB-13)	192	Ognev, A. (APC-01)	18
Noé, P. (CPB-13)	45	Ognev, A. (APC-05)	19
Noé, P. (DOB-11)	49	Ognev, A. (XOC-07)	206
Noël, P. (APC-12)	20	Ognev, A. (XPC-08)	212
Noël, P. (COD-05)	38	Oguchi, N. (XPC-09)	212
Noël, P. (DOB-06)	48	Oh, J. (DPA-12)	55
Noguchi, S. (JPA-09)	93	Ohara, K. (XPC-01)	211
Nogués, J. (XOD-01)	207	Ohashi, S. (FOA-16)	71
Noky, J. (SA-03)	2	Ohashi, S. (FPA-06)	72
Nomoto, T. (BOA-04)	20	Ohashi, S. (KPA-01)	98
Nomura, H. (CPA-01)	41	Ohashi, S. (KPA-02)	98
Nomura, H. (TPB-08)	172	Ohashi, S. (KPA-09)	99
Nomura, K. (DOB-08)	49	Ohashi, Y. (IOA-09)	85
Nonaka, H. (QOB-10)	141	Ohashi, Y. (ZPA-06)	222
Nongjai, R. (DPA-09)	55	Ohguchi, H. (GPA-05)	75
Noro, S. (XPA-02)	213	Ohinata, T. (MOB-07)	109
Noujima, M. (VOB-07)	182	Ohishi, Y. (QPB-09)	145
Noujima, M. (VOB-15)	183	Ohkoshi, S. (POA-15)	128
Novak, V. (XOB-01)	203	Ohkubo, H. (VOA-02)	179
Novosad, V. (SB-03)	3	Ohkubo, T. (AOA-06)	9
Novosad, V. (SD-03)	5	Ohkubo, T. (AOA-09)	10
Novosad, V. (SOD-07)	156	Ohkubo, T. (DPA-06)	54
Novoselov, K.S. (CPB-03)	44	Ohkubo, T. (DPA-11)	55
Nowak, U. (BOD-07)	27	Ohkubo, T. (QOA-06)	138
Nowak, U. (COB-13)	34	Ohkubo, T. (SF-04)	7
Nowak, U. (SOF-06)	160	Ohkubo, T. (VOA-03)	179
Nozaki, T. (AOA-06)	9	Ohkubo, T. (VOA-07)	180
Nozaki, T. (DOE-01)	52	Ohkubo, T. (WOA-02)	188
Nozaki, T. (DOE-03)	53	Ohkubo, T. (WOA-05)	189
Nozaki, Y. (DPA-06)	54	Ohkubo, T. (WOA-09)	189
Nozaki, Y. (DPA-11)	55	Ohkubo, T. (WOA-12)	189
Nozaki, Y. (TOB-15)	167	Ohkubo, T. (WOB-07)	191
Nozaki, Y. (YOB-02)	216	Ohkubo, T. (WOB-12)	191
Nuber, U. (EOA-07)	62	Ohkubo, T. (YOA-10)	216
Numata, M. (YOA-09)	216	Ohno, H. (BOA-03)	20
Nunez, J.P. (QPA-04)	142	Ohno, S. (TOB-11)	166
Nussle, T. (SOB-04)	151	Ohno, S. (ZPA-02)	221
Nutter, P. (APA-08)	16	Ohnuma, M. (QOB-11)	141
		Ohnuma, S. (RPA-04)	149
		Ohnuma, S. (RPA-05)	149
		Ohodnicki, P. (UOA-02)	174
		Ohodnicki, P. (VPA-01)	183
		Ohresser, P. (XOC-11)	206
		Ohshima, T. (POB-02)	128
		Ohta, H. (WPB-09)	199
		Ohta, R. (VPA-09)	184
		Ohta, T. (COE-07)	40
		Ohtake, M. (VOA-06)	180

- O -

*Best student presentation award finalist

Ohtake, M. (VPB-04).....	186	Ontoso, N. (COE-02).....	39
Ohtake, M. (VPB-10).....	187	Ontoso, N. (COE-03).....	39
Ohtake, M. (XPA-02).....	213	Onuma, T. (SF-04).....	7
Ohwada, K. (APA-02).....	15	Onuma, T. (VPB-09).....	187
Ohwada, K. (DOB-05).....	48	Onuma, T. (WOA-01).....	188
Oikawa, K. (IOA-01).....	84	Oogane, M. (AOA-11).....	10
Oka, C. (QOB-08).....	141	Oogane, M. (POC-12).....	132
Oka, M. (IOA-04).....	84	Oogane, M. (YPA-01).....	218
Oka, M. (IPA-01).....	87	Oogane, M. (ZOA-06).....	220
Oka, M. (YOA-11).....	216	Ootera, Y. (DPA-02).....	54
Okabayashi, J. (ROA-05).....	147	Ooyama, H. (POA-09).....	127
Okabayashi, J. (WOD-05).....	195	Opel, M. (BPA-13).....	29
Okabayashi, J. (XOA-06).....	202	Opel, M. (DOC-11).....	51
Okada, S. (WOB-13).....	192	Oppeneer, P. (BOD-07).....	27
Okada, S. (WOB-14).....	192	Ortega, D. (EOA-03).....	61
Okada, S. (WPC-07).....	200	Ortner, M. (APA-09).....	16
Okada, T. (DOA-08).....	47	Orue, I. (EOA-01).....	61
Okada, T. (QPB-06).....	144	Orue, I. (SC-06).....	5
Okada, T. (QPB-09).....	145	Oshima, D. (APC-10).....	19
Okada, Y. (COE-07).....	40	Oshima, D. (EPA-09).....	66
Okamoto, J. (HOA-01).....	80	Oshima, D. (OPB-03).....	125
Okamoto, J. (IOB-01).....	85	Oshima, D. (POC-03).....	130
Okamoto, K. (IOA-04).....	84	Oshima, D. (XOC-05).....	205
Okamoto, S. (NOA-09).....	114	Oshima, D. (XPC-07).....	211
Okamoto, S. (SF-04).....	7	Osorio, M.R. (XOD-03).....	207
Okamoto, S. (TOB-11).....	166	Ostanin, S. (DOC-03).....	50
Okamoto, S. (VOB-05).....	181	Ostler, T. (SOA-07).....	150
Okamoto, S. (VOB-14).....	183	Ota, S. (EPA-10).....	67
Okamoto, S. (VPB-03).....	186	Ota, S. (EPA-11).....	67
Okamoto, S. (VPB-09).....	187	Ota, S. (XPC-06).....	211
Okamoto, S. (WOA-01).....	188	Ota, S. (XPC-12).....	212
Okamoto, S. (ZPA-02).....	221	Ota, Y. (QPB-02).....	144
Okamoto, Y. (OPA-06).....	124	Otani, Y. (BOA-04).....	20
Okano, M. (SOA-09).....	150	Otani, Y. (BOA-07).....	21
Okawa, Y. (WPC-07).....	200	Otani, Y. (OOB-09).....	122
Okazaki, H. (KPA-10).....	99	Otani, Y. (SB-04).....	3
Okazaki, K. (HOA-01).....	80	Otani, Y. (SOD-04).....	155
Okazaki, R. (POA-12).....	127	Otani, Y. (XOD-12).....	208
Okazaki, R. (VOB-10).....	182	Otani, Y. (YOB-04).....	217
Okubo, S. (WPB-09).....	199	Otero, E. (XOC-11).....	206
Okubo, T. (MPB-01).....	112	Otrokov, M.M. (COD-06).....	38
Okuda, T. (APA-02).....	15	Otska, S. (VOA-02).....	179
Okuda, T. (DOB-05).....	48	Otsuka, K. (WPA-09).....	197
Okumura, Y. (PPC-12).....	136	Otxoa, R. (WOD-01).....	194
Okuno, H. (COC-11).....	37	Otyepka, M. (COC-05).....	35
Okuno, H. (COD-09).....	38	Ouerghi, A. (COD-09).....	38
Okuno, H. (COE-08).....	40	Ourdani, D. (COA-04).....	31
Ollefs, K. (QOA-05).....	138	Ourdani, D. (DOD-06).....	52
Ollefs, K. (SOF-05).....	160	Ouyang, G. (VOB-13).....	182
Ollefs, K. (XOA-07).....	202	Ouyang, G. (WOA-04).....	188
Ollefs, K. (YOA-05).....	215	Ovari, T.A. (VOA-08).....	180
Olsthoorn, B. (YOA-04).....	215	Ovari, T.A. (VPA-07).....	184
Omari, K. (XOB-01).....	203	Ovcharov, R. (BOD-08).....	27
Onishi, N. (VPA-06).....	184	Ovcharov, R. (TOA-11).....	165
Onishi, Y. (DPA-14).....	55	Overboom, T. (FOA-07).....	70
Ono, N. (SF-04).....	7	Owari, N. (VPB-06).....	186
Ono, N. (VOB-05).....	181	Oyake, T. (XPB-01).....	209
Ono, N. (VPB-03).....	186	Oyama, D. (EPA-06).....	66
Ono, S. (DOD-06).....	52	Oyama, D. (EPB-11).....	69
Ono, S. (XPA-03).....	213	Oyoshi, K. (UOB-06).....	176
Ono, T. (APC-01).....	18	Ozaki, K. (POA-12).....	127
Ono, T. (BOA-10).....	21	Ozaki, K. (VOB-10).....	182
Ono, T. (BPA-11).....	29	Ozaki, K. (WOB-14).....	192
Ono, T. (BPA-12).....	29	Ozaki, K. (WOC-01).....	192
Ono, T. (DPB-11).....	57	Ozawa, A. (DOB-08).....	49
Ono, T. (QPB-08).....	145	Ozdemir, S. (XOA-09).....	203
Ono, T. (SPA-08).....	162	Ozden, M.G. (VOA-01).....	179
Ono, T. (XOB-02).....	203	Ozeki, T. (ROB-04).....	148
Ono, T. (XPC-09).....	212		
Ono, T. (YOA-01).....	214		
Ono, T. (ZPA-01).....	221		
Onoda, H. (DOE-01).....	52		
Onoda, S. (POB-02).....	128		
Onodera, R. (EPA-05).....	66		
Onsal, M. (JOA-05).....	91		
Onsal, M. (POB-10).....	129		
Ontoso, N. (AOC-10).....	14		

- P -

Pace, M. (SOF-05).....	160
Pachat, R. (DOD-06).....	52
Pacheco, A. (NOA-01).....	113
Pacheco, A. (TOC-07).....	169
Pachlhofer, J. (TOC-11).....	169
Padrun, M. (VPA-03).....	183

*Best student presentation award finalist

Paetzold, L. (XOA-05).....	202	Parkin, S. (DPB-13).....	57
Pai, C. (BOA-02).....	20	Parkin, S. (XOA-04).....	202
Pai, C. (DOA-04).....	46	Partini, J. (EPA-09).....	66
Pai, C. (DOB-09).....	49	Pascal, J. (POC-04).....	130
Paikaray, B. (CPA-17).....	43	Pascal, J. (POC-11).....	131
Paikaray, B. (XPA-10).....	214	Pasquale, M. (VOB-12).....	182
Paiz, p. (EOB-02).....	63	Patel, A. (TOC-10).....	169
Pakala, M. (OPB-09).....	125	Patel, A.K. (UOB-05).....	176
Pal, P.K. (XOC-06).....	206	Pathak, P. (VPB-12).....	187
Palakkal, J. (XOA-07).....	202	Patra, C. (CPB-09).....	45
Paleo, C. (XPB-06).....	210	Patra, D. (XOD-11).....	208
Palmero, E.M. (WOD-03).....	194	Pattabi, A. (BOD-01).....	26
Palmero, E.M. (WOD-08).....	195	Patterson, J. (CPB-13).....	45
Palmero, E.M. (WOD-15).....	196	Patterson, J. (DOB-11).....	49
Palmero, E.M. (XOD-03).....	207	Pavese, G. (SG-05).....	8
Pan, B. (COA-12).....	32	Pavlidis, V. (COA-03).....	31
Pan, C. (BOC-01).....	24	Pavlidis, V. (CPA-15).....	43
Pan, C. (DPB-16).....	58	Payen, L. (EOA-08).....	62
Pan, D. (OPB-03).....	125	Paz, E. (POC-05).....	131
Pan, D. (XOB-06).....	204	Paz, E. (SG-02).....	8
Pan, F. (DOA-01).....	46	Pearson, J.E. (SB-03).....	3
Pan, H. (GOA-02).....	74	Pearson, J.E. (SOD-07).....	156
Pan, Y. (QPA-07).....	143	Pecheux, A. (QOB-09).....	141
Pandurangi, A.K. (EPB-10).....	69	Pechlivanidou, M. (JOA-13).....	92
Pang, H. (LPA-03).....	103	Pei, R. (FPA-10).....	73
Pang, H. (MOA-13).....	107	Pei, R. (HPA-06).....	82
Pang, H. (MOA-17).....	107	Pei, R. (IPA-07).....	88
Panhale, S. (MOA-10).....	107	Pei, R. (LPA-12).....	104
Paniago, R. (XOA-08).....	202	Pei, R. (LPA-14).....	104
Panigrahi, B. (TOB-12).....	167	Pei, R. (VPB-13).....	187
Panre, A.M. (XPC-07).....	211	Pei, Y. (JPB-04).....	95
Pantasri, W. (TOC-05).....	168	Peinhaupt, S. (SPA-11).....	163
Pantasri, W. (TPC-05).....	173	Peiró, F. (XOD-01).....	207
Papaioannou, E. (DOC-13).....	51	Peng, K. (KOA-06).....	97
Papp, A. (SB-05).....	3	Peng, L. (YOA-06).....	215
Papp, A. (SOB-01).....	151	Peng, S. (BPA-03).....	28
Papp, A. (SOC-12).....	154	Peng, S. (BPA-06).....	28
Papp, D.R. (NPA-04).....	118	Peng, S. (COB-11).....	34
Papp, D.R. (SOB-05).....	151	Peng, S. (DOE-05).....	53
Pappu, Y. (DPC-13).....	60	Peng, S. (OOB-07).....	122
Parent, G. (FOA-03).....	70	Peng, S. (OPB-02).....	125
Park, A.M. (TPA-01).....	170	Peng, Y. (BOD-02).....	26
Park, B. (APB-07).....	17	Peng, Y. (CPA-04).....	42
Park, B. (BPA-01).....	28	Penn, A. (VOB-01).....	181
Park, B. (DOD-03).....	52	Peral, I. (XOD-01).....	207
Park, B. (NPA-13).....	119	Peremadathil- Pradeep, R. (CPA-14).....	43
Park, B. (OPB-09).....	125	Perez Del Real, R. (SD-01).....	5
Park, B. (PPB-10).....	134	Perez Del Real, R. (VOA-04).....	180
Park, C. (OPB-09).....	125	Pérez-Landazábal, J. (ZOA-09).....	220
Park, D. (KPA-13).....	99	Perez, L. (XOD-14).....	209
Park, H. (APB-10).....	18	Perna, P. (COD-07).....	38
Park, H. (DPA-12).....	55	Perna, S. (SB-05).....	3
Park, I. (MPB-03).....	112	Persson, J. (SOE-08).....	158
Park, J. (APB-07).....	17	Persson, P. (XPA-07).....	213
Park, J. (DPA-17).....	56	Perumal, H. (TOA-02).....	164
Park, J. (FPA-02).....	72	Perumal, H. (TPA-04).....	170
Park, J. (GPA-09).....	76	Perumal, H. (XPA-10).....	214
Park, J. (GPA-10).....	76	Petit-Watlot, S. (COD-07).....	38
Park, J. (GPB-05).....	78	Petit, L. (SOA-07).....	150
Park, J. (KPA-07).....	98	Petrillo, A. (XOB-07).....	204
Park, J. (NOB-14).....	117	Petrun, M. (FOA-04).....	70
Park, J. (OPB-09).....	125	Petryshynets, I. (VOB-08).....	182
Park, J. (PPB-01).....	133	Pfaff, W. (SOD-07).....	156
Park, J. (TPA-10).....	171	Pfeuffer, L. (QOA-09).....	139
Park, j. (WOB-09).....	191	Pfeuffer, L. (QPA-12).....	143
Park, J. (ZOA-10).....	220	Pham, H.N. (AOB-08).....	12
Park, K. (PPB-09).....	133	Pham, H.N. (AOC-02).....	13
Park, K. (WOC-11).....	193	Pham, H.N. (COC-03).....	35
Park, M. (BPA-15).....	30	Pham, H.N. (COD-03).....	37
Park, M. (IPA-05).....	88	Pham, H.N. (OOB-02).....	121
Park, S. (GPA-09).....	76	Pham, V. (AOC-10).....	14
Park, S. (GPB-07).....	78	Pham, V. (COE-02).....	39
Park, S. (GPB-09).....	78	Phan, N. (NOB-09).....	116
Park, S. (KPA-13).....	99	Phan, N. (PPA-03).....	132
Park, W. (NPA-10).....	118	Phoomatna, R. (BPA-07).....	29
Parkin, S. (COB-04).....	33	Phukan, G. (EOA-09).....	62
Parkin, S. (COB-10).....	34		

*Best student presentation award finalist

- Q -

Phung, A. (HPA-05)	82	Qian, Q. (IPB-10)	90
Pierquin, A. (FOA-12)	71	Qiang, B. (CPA-16)	43
Pietruczik, A. (XOB-10)	205	Qiao, K. (QOA-04)	138
Pile, R. (FOA-03)	70	Qiao, Z. (LOA-03)	101
Pile, S. (SOC-10)	154	Qin, G. (WOD-08)	195
Pillich, C. (QOA-05)	138	Qin, G. (WOD-09)	195
Pillsbury, T. (COD-01)	37	Qin, H. (APB-04)	17
Piramanayagam, S. (AOB-06)	11	Qin, H. (APB-05)	17
Piramanayagam, S. (NPA-08)	118	Qin, H. (SOF-09)	161
Piriaux, L. (XOC-01)	205	Qin, H. (TOA-06)	164
Pirro, P. (QOA-02)	138	Qin, H. (XOB-06)	204
Pirro, P. (SOC-04)	153	Qin, J. (CPB-04)	44
Pirro, P. (SOD-10)	156	Qin, J. (QOB-12)	141
Pirro, P. (SOE-01)	157	Qin, J. (YPA-08)	219
Pirro, P. (SOF-07)	160	Qin, W. (KOA-01)	97
Pirro, P. (TOB-06)	166	Qiu, J. (APB-12)	18
Pizzini, S. (COA-04)	31	Qiu, X. (BOC-01)	24
Platonov, S. (QPA-15)	143	Qiu, X. (DPB-16)	58
Plaza, A.E. (SG-05)	8	Qiu, X. (JPA-15)	94
Podmiljsak, B. (WOB-03)	190	Qiu, Z. (MPB-05)	112
Poggio, M. (YOB-05)	217	Qiu, Z. (MPB-09)	113
Poh, H. (BOC-11)	26	Qiu, Z. (NPA-16)	119
Poh, H. (CPB-12)	45	Qu, D. (DOA-06)	47
Poh, H. (DPA-07)	54	Qu, G. (AOB-03)	11
Pohl, D. (YOB-06)	217	Quach, L. (NPA-12)	119
Polakovic, T. (SB-03)	3	Quan, L. (JPA-10)	93
Polakovic, T. (SOD-07)	156	Quan, L. (JPB-11)	95
Polewczyk, V. (COE-08)	40	Quan, L. (JPB-15)	96
Poli, E. (OOB-15)	123	Querlioz, D. (COA-11)	32
Polley, D. (BOD-01)	26	Querlioz, D. (SG-03)	8
Pomyalov, A. (SOC-02)	152	Querlioz, D. (TOB-09)	166
Pong, P. (JPB-12)	96	Quesada, A. (UOA-05)	175
Ponomaryov, A. (SOD-01)	155	Quinsat, M. (DPA-02)	54
Pontlevy, A. (NOB-02)	115	Quirke, J. (ZOA-08)	220
Poole, S. (XOB-01)	203	Quirós, C. (TOB-13)	167
Popescu, H. (COB-07)	33		
Porro, M. (SOF-05)	160		
Posti, R. (AOC-06)	13		
Pourkevannour, S. (FPA-15)	73		
Pourkevannour, S. (MPA-01)	109		
Powalla, L. (COE-10)	41		
Prabhakar, A. (SOC-07)	153		
Pradeep, K. (WOB-01)	190		
Pradhan, J. (DPC-13)	60		
Pradhan, J. (TOB-05)	166		
Prasad, B. (UOA-01)	174		
Prasad, N. (NOB-11)	116		
Prasad, N. (PPA-03)	132		
Pratt, A. (XOA-10)	203		
Pratt, A. (YOB-07)	217		
Prejbeanu, I. (DPC-06)	59		
Prejbeanu, I. (OOB-10)	122		
Prejbeanu, I. (OPB-05)	125		
Prejbeanu, I. (POB-05)	129		
Prejbeanu, I. (POC-04)	130		
Prejbeanu, I. (SOA-01)	149		
Prenat, G. (APC-12)	20		
Prenat, G. (CPB-13)	45		
Prenat, G. (DOB-11)	49		
Prendeville, L. (BOA-12)	22		
Prieto, J. (UOA-05)	175		
Prinsloo, A. (ROA-07)	147		
Priyanka, B. (TOA-02)	164		
Priyanka, B. (TPA-04)	170		
Probert, M.I. (SOB-09)	152		
Prusty, M.M. (QPA-01)	142		
Puebla, J. (SB-04)	3		
Puebla, J. (SOD-04)	155		
Puebla, J. (XOD-12)	208		
Puliafito, V. (NOB-08)	116		
Puliafito, V. (PPD-03)	137		
Purnode, F. (SE-03)	6		
Puspitarum, D.L. (EPA-09)	66		
Puthirath Balan, A. (COE-09)	40		
Pylypovskyi, O. (ROB-01)	147		
Pyo, H. (GPB-03)	78		
Pyo, H. (GPB-04)	78		

- R -

Raab, K. (AOB-01)	11
Raab, K. (COA-10)	32
Raab, K. (COB-13)	34
Raabe, D. (VOB-06)	181
Raabe, J. (SPA-09)	162
Raabe, J. (TOC-07)	169
Raabe, J. (YOA-04)	215
Rafin, S. (IPA-08)	88
Ragusa, C. (MOA-04)	106
Ragusa, C. (SF-02)	7
Ragusa, C. (SF-03)	7
Rahaman, H. (AOB-06)	11
Rahaman, H. (NPA-08)	118
Rahaman, M. (QPB-11)	145
Rahaman, M. (TPB-11)	172
Rahm, M. (DOC-13)	51
Rahman, M. (SD-02)	5
Rahmanović, E. (FOA-04)	70
Raimondo, E. (POA-05)	127
Raimondo, E. (PPD-03)	137
Raja, M. (QPB-11)	145
Raja, M.M. (TPB-11)	172
Rajabali, M. (AOB-05)	11
Rajabali, M. (DOC-09)	50
Rajabali, M. (POA-02)	126
Rajan, A. (BOB-05)	23
Rajan, A. (BOC-06)	25
Ralph, D.C. (COE-01)	39
Rama-Eiroa, R. (WOD-01)	194
Ramesh, R. (NOA-04)	114
Ramos, R. (BOB-05)	23
Ramos, R. (BOC-06)	25
Ramos, R. (DOB-01)	48
Ramos, R. (SOF-03)	159
Ramsteiner, M. (COE-06)	40
Ramu, M. (AOB-06)	11
Ramu, M. (NPA-08)	118
Ran, S. (TPC-01)	173

*Best student presentation award finalist

Ranjan, A. (DPB-06)	57	Rodrigues, D. (PPD-03)	137
Ranjbar, J. (EOA-03)	61	Roe, D.L. (ZPA-11)	222
Ranno, L. (COA-04)	31	Roessli, B. (SOC-11)	154
Rao, S. (DOE-02)	53	Rogachev, K. (XPC-08)	212
Rao, S. (OOB-06)	121	Rogalev, A. (QOA-05)	138
Rao, S. (OOB-08)	122	Rogalev, A. (XOC-11)	206
Rao, S. (TOB-04)	165	Rogalev, A. (YOA-05)	215
Rastogi, A. (BOD-01)	26	Rogers, M. (BOB-11)	23
Ratha, S. (ROB-03)	148	Rogers, M. (OOB-15)	123
Raulet, M. (MOB-02)	108	Rogers, M. (XOA-09)	203
Ravelosona, D. (COA-11)	32	Rohrmann, H. (VPA-03)	183
Ravelosona, D. (DOD-06)	52	Rojas-Sanchez, J. (COD-07)	38
Rawat, P. (QOA-11)	139	Romagnoli, G. (YOB-05)	217
Rawat, R. (DPA-09)	55	Romary, R. (MOB-05)	108
Rawat, R. (NPA-11)	118	Romera, M. (TOB-09)	166
Rawat, R. (QPB-11)	145	Ronayne, W. (DOA-02)	46
Reddy, V.R. (TPB-11)	172	Rosa, R.J. (XOA-08)	202
Regnault, N. (SA-02)	2	Rosenberg, E. (VOB-01)	181
Rehman, A. (HPA-02)	81	Rosenkamp, R. (DOE-06)	53
Reichel, L. (TOC-06)	169	Roshandel, E. (GOA-01)	74
Reichlova, H. (BOA-09)	21	Rösner, B. (SOF-05)	160
Reiffers, M. (QPA-06)	142	Ross, A. (BOB-03)	22
Reiffers, M. (QPA-11)	143	Ross, A. (BOB-05)	23
Reifsnnyder Hickey, D. (COD-01)	37	Ross, A. (SG-03)	8
Reimann, T. (SOD-08)	156	Ross, C. (NOA-04)	114
Reimann, T. (SPA-11)	163	Ross, C. (VOB-01)	181
Reimann, T. (SPA-17)	163	Rotarescu, C. (VPA-07)	184
Reimers, S. (BOD-03)	26	Rothenschach, N. (SOF-05)	160
Reimers, S. (XOB-01)	203	Rothörl, J. (COA-10)	32
Reiss, D. (DOA-11)	47	Rothörl, J. (CPA-13)	43
Reith, H. (VOA-11)	181	Rothschild, A. (AOB-11)	12
Rellinghaus, B. (YOB-06)	217	Rothschild, A. (YOB-01)	216
Remmo, A. (SC-05)	4	Roussigné, Y. (COA-04)	31
Remy, Q. (SOA-04)	150	Roussigné, Y. (DOD-06)	52
Remy, Q. (SPA-05)	161	Roussos, J. (QOA-01)	138
Remya, U. (QPA-11)	143	Rouzegar, M. (DOA-11)	47
Ren, B. (LOA-02)	101	Roy Chowdhury, R. (CPB-09)	45
Ren, J. (BOC-02)	24	Roy, S. (DOA-02)	46
Ren, L. (OOB-01)	121	Roy, S. (YOA-03)	215
Ren, Y. (COE-01)	39	Roy, T. (AOA-08)	10
Ren, Z. (TOC-04)	168	Roy, T. (SA-05)	2
Resende, Ú.d. (EPB-08)	68	Royo-Silvestre, I. (KPA-04)	98
Resende, Ú.d. (PPB-02)	133	Rozhansky, I. (TOA-05)	164
Reshetniak, H. (SPA-12)	163	Rózsa, L. (CPB-03)	44
Rethfeld, B. (SOF-03)	159	Ruan, X. (BOD-04)	27
Reyren, N. (AOB-09)	12	Ruan, X. (DPA-10)	55
Reyren, N. (APB-06)	17	Ruan, X. (XOA-03)	202
Reyren, N. (COA-02)	31	Rubio-Zuazo, J. (COE-06)	40
Reyren, N. (COA-11)	32	Ruhwedel, M. (DOC-13)	51
Reyren, N. (COB-05)	33	Ruiz Gómez, S. (NOA-01)	113
Reyren, N. (COD-04)	37	Ruiz Gómez, S. (XOD-14)	209
Reyren, N. (COE-05)	39	Ruiz-Clavijo, A. (XOC-02)	205
Rezaeiyan, Y. (NOB-03)	115	Ruiz-Gomez, S. (TOC-07)	169
Rezvani, J. (SOF-05)	160	Ruiz, O. (OPA-08)	124
Rhyee, J. (QOA-11)	139	Rüßmann, P. (COE-09)	40
Riahi, K. (EOA-07)	62	Rustagi, A. (SD-02)	5
Rial, J. (BOA-09)	21	Rusz, J. (YOB-08)	217
Richter, J.H. (VPA-03)	183	Ruta, S. (SOA-07)	150
Riddiford, L. (COD-01)	37	Ryba, T. (QPA-06)	142
Riedel, C. (SOC-13)	154	Rychly-	
Riedel, M. (NOB-12)	117	Gruszecka, J.N. (XPB-11)	210
Riegg, S. (QOA-09)	139	Rycroft, C.H. (SA-02)	2
Riegg, S. (WOB-05)	190	Ryeong, J. (WOB-04)	190
Riegg, S. (WOB-08)	191	Ryu, J. (APB-07)	17
Riswan, M. (XPC-07)	211	Ryu, J. (NPA-13)	119
Rivard, C. (QOA-01)	138		
Rivas, M. (TU-01)	1		
Robredo, I. (COE-02)	39		
Rocabert, U. (WOD-09)	195		
Rocchino, L. (VOB-12)	182		
Roche, S. (COC-07)	36		
Rode, K. (BOA-12)	22		
Rode, K. (DOC-02)	49		
Rode, K. (XOB-04)	204		
Rodrigues, D. (CPA-13)	43		
Rodrigues, D. (NOB-02)	115		
Rodrigues, D. (NOB-08)	116		

- S -

S, S. (QPB-11)	145
Sa, J. (IOA-06)	85
Sabariego, R. (MOB-02)	108
Sabariego, R. (MOB-04)	108
Sabirianov, R. (COC-10)	36
Sabirianov, R. (WOD-13)	196
Sabon, P. (POB-05)	129
Sack, R. (SC-04)	4
Sadashiva, A. (NOB-10)	116

*Best student presentation award finalist

Sadhashivam, M. (WOB-01)	190	Sala, G. (DOB-06)	48
Sadowski, J. (UOB-02)	176	Salaheldeen, M. (QOA-10)	139
Saerbeck, T. (XOA-05)	202	Salahuddin, S. (QOB-03)	140
Safeer, C. (COE-03)	39	Salama, S. (SOC-08)	153
Sagasta, E. (AOC-10)	14	Salama, S. (SOD-03)	155
Saha, S. (QPB-13)	145	Salikhov, R. (SOD-01)	155
Sahoo, B. (DOA-03)	46	Salimy, S. (OOB-14)	122
Sai, R. (VOA-10)	180	Salomoni, D. (NOB-04)	115
Sai, R. (XOB-09)	205	Samanta, A. (DOA-02)	46
Sai, T. (OPA-01)	123	Samardak, A. (APC-01)	18
Saighi, S. (SG-03)	8	Samardak, A. (XOC-07)	206
Sait, C.R. (SOA-02)	150	Samardak, A. (XPB-03)	209
Saito, H. (BOC-12)	26	Samardak, A. (XPC-08)	212
Saito, H. (OPA-04)	124	Samardak, A.S. (APC-05)	19
Saito, H. (XOD-09)	208	Samardak, A.S. (XOC-07)	206
Saito, H. (YPA-02)	218	Samardak, A.S. (XPC-08)	212
Saito, M. (NPA-06)	118	Samarth, N. (COD-01)	37
Saito, M. (XOC-05)	205	Samartsev, A. (SOF-05)	160
Saito, M. (XPC-09)	212	Samatham, S. (TOC-10)	169
Saito, S. (NPA-01)	117	Samatham, S. (UOB-05)	176
Saito, S. (NPA-02)	117	Sameshima, H. (BOB-08)	23
Saito, S. (OPA-01)	123	Sameshima, H. (BOB-09)	23
Saito, S. (VOB-09)	182	Sanada, Y. (ROA-06)	147
Saito, S. (XOD-13)	209	Sanchez	
Saito, T. (NPA-01)	117	Llamazares, J.L. (QPA-06)	142
Saito, T. (WOD-04)	195	Sanchez-Tejerina, L. (BOB-05)	23
Saito, T. (WPC-11)	201	Sankaran, K. (DOE-02)	53
Saito, Y. (AOC-04)	13	Sano, K. (QOB-08)	141
Saito, Y. (APB-09)	17	Sant, R. (COE-08)	40
Saitoh, E. (BOB-02)	22	Santana-Otero, A. (EOA-03)	61
Saitoh, E. (BOB-05)	23	Santhosh, P. (UPA-01)	177
Saitoh, E. (BOC-06)	25	Santos, E. (CPB-03)	44
Saitoh, E. (DOA-07)	47	Santos, E. (SOA-03)	150
Saitoh, E. (DOA-09)	47	Santos, J. (EPB-06)	68
Saitoh, E. (DOB-01)	48	Santos, P.M. (TOC-09)	169
Saitoh, E. (DPA-01)	53	Santos, T. (NOB-11)	116
Saitoh, E. (SB-01)	3	Santoso, I. (XPC-07)	211
Saitoh, E. (SOC-06)	153	Sanz González, R. (XOC-02)	205
Saitoh, E. (SOF-03)	159	Sanz González, R. (XOD-14)	209
Saitoh, E. (SPA-13)	163	Sanz Hernandez, D. (COA-11)	32
Saitoh, E. (TOB-17)	168	Sanz Hernandez, D. (SG-03)	8
Sakaguchi, H. (QOB-10)	141	Sanz Hernandez, D. (TOB-03)	165
Sakaguchi, H. (QPB-04)	144	Sapatnekar, S. (NOB-12)	117
Sakai, A. (ZPA-08)	222	Sapkota, A. (COC-09)	36
Sakai, S. (BOB-13)	24	Sarfo, T. (DOC-08)	50
Sakai, T. (UPA-12)	179	Sarker, M. (SPA-10)	162
Sakakibara, M. (PPD-09)	137	Sarpi, B. (BOD-03)	26
Sakakura, T. (XPA-12)	214	Sasada, I. (PPD-01)	136
Sakamoto, H. (EPB-13)	69	Sasada, I. (PPD-08)	137
Sakamoto, M. (PPC-15)	136	Sasaki, I. (VPA-04)	184
Sakamoto, S. (DOD-02)	51	Sasaki, I. (VPA-10)	184
Sakamoto, S. (DOD-05)	52	Sasaki, I. (XPC-03)	211
Sakamoto, T. (XPC-01)	211	Sasaki, R. (YOA-01)	214
Sakima, S. (VPA-04)	184	Sasaki, S. (CPB-14)	46
Sakima, S. (VPA-10)	184	Sasaki, S. (KPA-05)	98
Sakkas, G.K. (SE-02)	6	Sasaki, T. (AOA-02)	9
Sakoguchi, A. (OOA-08)	120	Sasaki, T. (AOA-04)	9
Sakthivel, S. (QPA-11)	143	Sasaki, T. (AOA-05)	9
Sakuma, A. (DPB-14)	58	Sasaki, T. (DOB-05)	48
Sakuma, N. (SA-06)	2	Sasaki, T. (WOA-12)	189
Sakuma, N. (WOA-03)	188	Sasaki, T. (WPC-02)	200
Sakuma, N. (WOC-13)	194	Sasaki, Y. (APA-05)	15
Sakuraba, Y. (AOA-02)	9	Sasaki, Y. (BOA-10)	21
Sakuraba, Y. (AOA-04)	9	Sasaki, Y. (TPB-01)	171
Sakuraba, Y. (AOA-05)	9	Sasayama, T. (EOB-11)	65
Sakuraba, Y. (APA-02)	15	Sasayama, T. (PPC-02)	135
Sakuraba, Y. (BOB-13)	24	Sasayama, T. (YPA-03)	218
Sakuraba, Y. (DOA-05)	46	Sasayama, T. (YPA-05)	218
Sakuraba, Y. (DOB-05)	48	Sassi, Y. (AOB-09)	12
Sakuraba, Y. (DOC-04)	50	Sassi, Y. (COA-02)	31
Sakuraba, Y. (DPA-04)	54	Sassi, Y. (COA-11)	32
Sakuraba, Y. (POC-06)	131	Sato, A. (EPB-13)	69
Sakuraba, Y. (POC-10)	131	Sato, F. (KPA-05)	98
Sakurada, S. (WOC-02)	192	Sato, H. (APA-02)	15
Sakuragi, M. (WPA-13)	197	Sato, K. (APA-04)	15
Sakurai, H. (BOB-08)	23	Sato, K. (NOA-09)	114
Sakurai, J. (QOB-08)	141	Sato, M. (MPA-05)	110

*Best student presentation award finalist

Sato, M. (POA-13).....	128	Schrefl, T. (TOC-11).....	169
Sato, M. (VPB-10).....	187	Schrefl, T. (TOC-12).....	170
Sato, S. (VPB-06).....	186	Schrefl, T. (WOA-03).....	188
Sato, S. (WOB-13).....	192	Schrefl, T. (WOB-10).....	191
Sato, S. (YPA-04).....	218	Schrefl, T. (WOC-13).....	194
Sato, T. (APA-03).....	15	Schreiber, F. (BOB-05).....	23
Sato, T. (MPA-06).....	110	Schreiber, F. (BOC-06).....	25
Sato, T. (POA-09).....	127	Schulman, A. (SG-02).....	8
Sato, T. (QPB-03).....	144	Schulman, A. (SG-03).....	8
Sato, T. (SF-05).....	7	Schulman, A. (TOB-08).....	166
Sato, T. (SG-06).....	8	Schulman, A. (TPA-08).....	171
Sato, T. (VOB-09).....	182	Schultheiss, H. (AOB-05).....	11
Sato, T. (VPA-09).....	184	Schultheiss, H. (SOE-11).....	158
Sato, T. (VPB-14).....	187	Schultheiss, K. (SB-06).....	3
Sato, Y. (MPA-09).....	110	Schultheiss, K. (SOE-11).....	158
Sato, Y. (PPB-07).....	133	Schultheiss, K. (SPA-09).....	162
Sato, Y. (VOB-05).....	181	Schultz, M. (POC-02).....	130
Satoh, T. (DPB-11).....	57	Schulz, F. (COB-01).....	32
Satone, R. (APC-11).....	19	Schulz, F. (COE-10).....	41
Satone, R. (COB-06).....	33	Schütz, G. (COB-01).....	32
Satone, R. (CPA-12).....	42	Schütz, G. (COE-10).....	41
Satz, A. (DPC-14).....	60	Schütz, G. (SPA-09).....	162
Savary, M. (SE-04).....	6	Schwarz, M. (TOC-11).....	169
Saw, A.K. (QPA-04).....	142	Schwenke, P. (BPA-13).....	29
Sawamoto, A. (WPC-03).....	200	Scott, J.N. (SOA-02).....	150
Sawano, K. (DOA-08).....	47	Scott, J.R. (TOB-10).....	166
Sawano, K. (XOB-08).....	204	Seangwong, P. (JOA-12).....	92
Sawicki, M. (UOB-02).....	176	Sebald, G. (KPA-22).....	100
Sawicki, M. (UPA-07).....	178	Sebald, G. (MOB-03).....	108
Sbiaa, R. (AOB-06).....	11	Sebald, G. (ZOA-03).....	219
Schäfer, K. (WOB-05).....	190	Sebe, N. (AOB-09).....	12
Schäfer, L. (WOA-10).....	189	Sebe, N. (CPB-13).....	45
Schaffer, S. (SOB-03).....	151	Seddon, S. (COC-10).....	36
Schaffers, T. (TOA-06).....	164	Sedek, R. (WOB-11).....	191
Schauerte, B. (JOA-01).....	90	Seibel, C. (SOF-03).....	159
Scheibel, F. (QOA-07).....	139	Seifert, S. (NOA-01).....	113
Scheibel, F. (QPA-12).....	143	Seifert, T. (DOA-11).....	47
Scheibler, S. (EOA-06).....	62	Seino, S. (QPB-06).....	144
Scheike, T. (AOA-09).....	10	Seino, S. (QPB-09).....	145
Scheike, T. (APA-10).....	16	Seki, M. (SPA-10).....	162
Scheike, T. (DPA-11).....	55	Seki, T. (AOB-01).....	11
Scherz, A. (SOF-05).....	160	Seki, T. (BOB-04).....	23
Scheuer, L. (DOC-13).....	51	Seki, T. (DOB-08).....	49
Scheuer, L. (SOF-07).....	160	Seki, T. (DOC-06).....	50
Scheuer, L. (TOB-06).....	166	Seki, T. (DPB-08).....	57
Scheufele, M. (DOC-11).....	51	Seki, T. (XOB-05).....	204
Schick, D. (SOF-04).....	159	Sekiguchi, K. (DPB-04).....	56
Schilling, M. (SC-04).....	4	Sekino, M. (EOB-08).....	64
Schlappa, J. (SOF-05).....	160	Sekino, M. (EOB-09).....	64
Schlegel, J. (SOF-06).....	160	Sekino, M. (EOB-13).....	65
Schlitz, R. (DOB-06).....	48	Sekino, M. (EPB-09).....	69
Schlitz, R. (SOD-13).....	157	Selema, A. (IOB-02).....	86
Schmalzl, K. (SOE-08).....	158	Semboshi, S. (UOB-10).....	177
Schmitt, C. (BOB-03).....	22	Seneor, P. (COA-11).....	32
Schmitt, C. (BOB-05).....	23	Seo, K. (MPB-03).....	112
Schmitt, C. (BOC-06).....	25	Seong-Hyub, L. (APB-14).....	18
Schmitt, C. (BPA-14).....	29	Sepehri-Amin, H. (OOA-02).....	120
Schmitt, C. (SOF-03).....	159	Sepehri-Amin, H. (QOA-06).....	138
Schmitt, M. (COE-09).....	40	Sepehri-Amin, H. (SF-04).....	7
Schmitt, M. (CPA-13).....	43	Sepehri-Amin, H. (VOA-07).....	180
Schmoll, D. (SOD-08).....	156	Sepehri-Amin, H. (WOA-02).....	188
Schmoll, D. (SPA-11).....	163	Sepehri-Amin, H. (WOA-05).....	189
Schmool, D.S. (SPA-06).....	162	Sepehri-Amin, H. (WOA-09).....	189
Schmool, D.S. (TOB-13).....	167	Sepehri-Amin, H. (WOB-07).....	191
Schmoranzarová, E. (BOA-09).....	21	Sepehri-Amin, H. (WOB-12).....	191
Schneider, H. (SOF-02).....	159	Sepehri-Amin, H. (YOA-10).....	216
Schneider, H. (SOF-03).....	159	Serantes, D. (SC-02).....	4
Schneider, K. (SF-06).....	7	Serdeha, I. (DPC-03).....	59
Schneider, M. (SOC-04).....	153	Serdeha, I. (SOA-05).....	150
Schneider, S. (YOB-06).....	217	Serdyuk, Y. (IOA-08).....	85
Schnitzspan, L. (AOA-10).....	10	Seredina, M. (UOB-08).....	177
Schoeffmann, P. (XOC-11).....	206	Serga, A.A. (SOC-02).....	152
Schöffmann, P. (DOD-06).....	52	Serga, A.A. (SOD-05).....	155
Scholl, A. (YOA-03).....	215	Serha, R. (SOD-05).....	155
Scholz, T. (COE-09).....	40	Serha, R. (SOD-08).....	156
Schrefl, T. (SA-06).....	2	Serha, R. (SPA-11).....	163
Schrefl, T. (SOB-03).....	151	Serpico, C. (SB-05).....	3

*Best student presentation award finalist

Sethi, P. (TOB-03)	165	Shimizu, K. (XPB-01)	209
Sgarro, P. (APC-12)	20	Shimizu, R. (ZPA-02)	221
Sgarro, P. (CPB-13)	45	Shimizu, T. (SF-01)	7
Sgarro, P. (DOB-11)	49	Shimohama, T. (XPC-01)	211
Sha, G. (PPD-07)	137	Shimura, K. (MPA-05)	110
Sha, L. (MPA-10)	111	Shin, H. (GPA-18)	77
Shafer, P. (DOC-05)	50	Shin, H. (HPA-05)	82
Shafer, P. (SOA-02)	150	Shin, J. (DPA-17)	56
Shahee, A. (COE-09)	40	Shin, J. (LPA-08)	104
Shan, W. (HPA-08)	82	Shin, J. (TOB-14)	167
Shang, W. (EOB-08)	64	Shin, K. (FPA-03)	72
Shao, D. (BOC-10)	25	Shin, K. (FPA-17)	74
Shao, Q. (SOC-05)	153	Shin, K. (GPB-01)	77
Shao, Q. (TOC-04)	168	Shin, K. (GPB-05)	78
Shao, Y. (DPC-01)	58	Shin, K. (HPA-05)	82
Shao, Z. (GPA-08)	76	Shin, K. (HPA-11)	82
Sharma, H. (XOB-03)	204	Shin, K. (HPA-12)	83
Sharma, R. (NOB-01)	115	Shin, K. (WPA-12)	197
Shashank, U. (DPA-09)	55	Shin, M. (TPA-01)	170
Shatilov, V. (BPA-04)	28	Shindo, D. (COB-09)	34
Shaw, C. (WPB-11)	199	shinohara, t. (YPA-06)	219
Shayanfar, N. (QPA-12)	143	Shinshi, T. (WPA-09)	197
She, D. (COD-04)	37	Shinshi, T. (WPA-15)	198
Shen, B. (QPA-07)	143	Shinshi, T. (WPB-01)	198
Shen, D. (JPA-14)	94	Shinto, I. (AOA-05)	9
Shen, F. (GPB-02)	78	Shinya, H. (APA-03)	15
Shen, H. (PPD-05)	137	Shiomi, Y. (BOB-02)	22
Sheng, L. (DOB-07)	48	Shiota, S. (PPC-13)	136
Sheng, L. (SB-01)	3	Shiota, Y. (APC-01)	18
Shepley, P. (QOB-07)	140	Shiota, Y. (BPA-11)	29
Sheppard, C. (ROA-07)	147	Shiota, Y. (BPA-12)	29
Shi, B. (EOB-04)	64	Shiota, Y. (CPA-01)	41
Shi, B. (EPA-02)	66	Shiota, Y. (DPB-11)	57
Shi, B. (PPD-04)	137	Shiota, Y. (QPB-08)	145
Shi, G. (NOB-01)	115	Shiota, Y. (SPA-08)	162
Shi, K. (OOB-07)	122	Shiota, Y. (YOA-01)	214
Shi, K. (POA-01)	126	Shirahama, E. (KPA-01)	98
Shi, L. (LOA-03)	101	Shirai, M. (AOA-08)	10
Shi, S. (OOA-05)	120	Shirai, M. (APA-03)	15
Shi, T. (OPB-07)	125	Shirai, M. (DOD-02)	51
Shi, Y. (WOB-06)	191	Shirai, M. (OPA-03)	124
Shibata, Y. (APA-04)	15	Shirai, M. (SA-05)	2
Shibauchi, T. (TPC-04)	173	Shiratsuchi, Y. (BOB-08)	23
Shibuya, T. (EOB-12)	65	Shiratsuchi, Y. (BOB-09)	23
Shibuya, T. (POB-08)	129	Shiratsuchi, Y. (BOB-12)	24
Shieh, J. (BOC-03)	24	Shiratsuchi, Y. (QPB-12)	145
Shigei, N. (MPA-08)	110	Shiratsuchi, Y. (ROA-06)	147
Shigeta, H. (PPD-07)	137	Shiratsuchi, Y. (XOC-10)	206
Shih, C. (COC-01)	35	Shirokura, T. (AOB-08)	12
Shih, P. (IPB-04)	89	Shirokura, T. (AOC-02)	13
Shih, Y. (RPA-06)	149	Shirokura, T. (COC-03)	35
Shikano, S. (UOA-09)	175	Shirokura, T. (OOB-02)	121
Shikano, S. (XPA-03)	213	Shirotori, S. (POC-08)	131
Shikayama, T. (VPA-04)	184	Shishelov, A.F. (XPB-03)	209
Shikayama, T. (VPA-10)	184	Shiu, D. (TPA-07)	171
Shikoh, E. (DPA-14)	55	Shiu, D. (TPC-07)	174
Shikoh, E. (DPA-16)	56	Shiu, D. (XPC-11)	212
Shiku, K. (PPC-06)	135	Shoji, T. (SA-06)	2
Shillaber, L. (MOA-03)	106	Shoji, T. (WOA-01)	188
Shim, W. (TOB-14)	167	Shoji, T. (WOA-03)	188
Shima, M. (DPB-10)	57	Shoji, T. (WOC-13)	194
Shima, M. (XPA-03)	213	Shokr, Y. (AOC-09)	14
Shima, M. (XPC-09)	212	Shortall, B. (TPB-06)	172
Shima, T. (WPB-03)	198	Shotbolt, M. (EOB-14)	65
Shima, T. (WPB-08)	199	Shoup, J.E. (OOB-03)	121
Shima, T. (WPC-09)	201	Shravan Kumar	
Shima, T. (WPC-14)	201	Reddy, S. (UOB-05)	176
Shima, T. (XPA-01)	212	Shrestha, N. (AOA-01)	9
Shimakawa, Y. (ZPA-01)	221	Shreya, S. (TPA-09)	171
Shimatsu, T. (NOA-09)	114	Shu, J. (MOB-08)	109
Shimba, K. (WPA-02)	196	Shuai, J. (CPA-05)	42
Shimizu, H. (BOB-02)	22	Shuai, J.Z. (FOA-02)	70
Shimizu, H. (DOA-07)	47	Shulgach, J. (EOB-14)	65
Shimizu, H. (DOA-09)	47	Shuto, M. (GPA-05)	75
Shimizu, H. (SOC-06)	153	Si, H. (IPB-06)	89
Shimizu, H. (TOB-17)	168	Sidi El Valli, A. (NOB-09)	116
Shimizu, K. (OOA-03)	120	Sidi El Valli, A. (PPA-03)	132

*Best student presentation award finalist

Sierra, J. (COE-04)	39	Song, Y. (VOB-01).	181
Siewierska, K.E. (XOB-04)	204	Song, Z. (GPB-10)	79
Sikola, T. (SOD-02)	155	Song, Z. (HOA-04)	80
Silva, M. (LOA-06)	101	Song, Z. (HOA-06)	80
Silva, M. (LPA-19)	105	Song, Z. (IOB-03)	86
Silva, M. (WOD-10)	195	Song, Z. (PPD-07)	137
Silvester, B. (SE-01)	6	Songjun, S. (JPB-03)	95
Simensen, H. (COE-09)	40	Sonobe, H. (YPA-02)	218
Simeonidis, K. (SC-02)	4	Sonobe, Y. (APA-07)	15
Simizu, S. (SF-06)	7	Sonobe, Y. (BPA-20)	30
Simon, G. (ROA-07)	147	Sonobe, Y. (NPA-06)	118
Singh, A. (YOA-03)	215	Soong, W. (GOA-01)	74
Singh, H. (NOA-02)	113	Sorensen, D. (TOC-09)	169
Singh, R. (CPB-09)	45	Sort, J. (ROA-03)	146
Sinha, J. (TOA-02)	164	Sotome, Y. (XOD-13)	209
Sinha, J. (TPA-04)	170	Soulard, J. (SE-01)	6
Sinha, J. (XPA-10)	214	Soumah, L. (NOB-09)	116
Sinova, J. (BOA-09)	21	Soumyanarayanan, A. (APB-12)	18
Sinova, J. (BOB-03)	22	Soumyanarayanan, A. (COA-06)	31
Sinova, J. (BOB-05)	23	Soupremanien, U.M. (VOB-03)	181
Sinova, J. (BOC-06)	25	Sousa, R. (DPC-06)	59
Sinova, J. (COB-03)	33	Sousa, R. (NOB-04)	115
Sinova, J. (SOF-03)	159	Sousa, R. (NOB-09)	116
Sinova, J. (XOB-01)	203	Sousa, R. (OOB-10)	122
Siritaratiwat, A. (JOA-12)	92	Sousa, R. (OPB-05)	125
Sisniega Soriano, B. (PPD-02)	137	Sousa, R. (POC-04)	130
Siu, Z. (CPB-02)	44	Sousa, R. (SOA-01)	149
Skelland, C. (WOB-10)	191	Souza, R.L. (XOA-08)	202
Skokov, K. (QOA-05)	138	Sparks, T.D. (COE-01)	39
Skokov, K. (QOA-07)	139	Sparmann, T. (BOC-06)	25
Skokov, K. (QOA-09)	139	Sparmann, T. (CPA-13)	43
Skokov, K. (QPA-05)	142	Spinato, D. (ROA-07)	147
Skokov, K. (QPA-12)	143	Spetzler, B. (POC-01)	130
Skokov, K. (WOA-10)	189	Spetzler, E. (POC-01)	130
Skokov, K. (WOB-08)	191	Spieser, A.M. (BOC-12)	26
Skokov, K. (YOA-05)	215	Spink, M.C. (APA-08)	16
Slager, R. (COD-08)	38	Spivakov, A. (VPA-14)	185
Slavakis, K. (XOD-08)	208	Spivakov, A. (XPC-04)	211
Slavin, A.N. (NOB-06)	116	Sravani, M. (BOC-04)	25
Smejkal, L. (BOA-09)	21	Srinath, S. (TPB-11)	172
Smith, D.A. (DOC-05)	50	Srinivas, V. (XOD-11)	208
Smith, I. (ROA-04)	146	Srinivasan, A. (VPB-07)	186
Smith, M. (APA-08)	16	Srinivasan, A. (VPB-12)	187
Smith, R. (DOC-02)	49	Srinivasan, K. (QOB-05)	140
Smith, R. (OPA-08)	124	Sriram, K. (DPC-13)	60
Snarski-Adamski, J. (XPB-11)	210	Srivastava, S. (COC-08)	36
Snarski-Adamski, J. (YOB-08)	217	Srivastava, T. (COB-05)	33
Snyder, J. (QPA-05)	142	Stadler, B. (TPC-06)	174
Soares, I.V. (EPB-08)	68	Stadtmüller, B. (SOF-03)	159
Soares, I.V. (PPB-02)	133	Stadtmüller, B. (SOF-07)	160
Soares, J.L. (PPB-02)	133	Stadtmüller, B. (TOB-06)	166
Sobucki, K. (SOC-09)	153	Stainer, Q. (OOB-14)	122
Sobucki, K. (TOA-09)	164	Stamenov, P.S. (DOC-02)	49
Soda, N. (IOA-04)	84	Stamenov, P.S. (TPB-06)	172
Soda, N. (IPA-01)	87	Stamenov, P.S. (XOB-04)	204
Sokoluk, D. (DOC-13)	51	Stamm, C. (SOF-05)	160
Sola, A. (SF-02)	7	Stanley, M. (COD-01)	37
Solignac, A. (DOD-06)	52	Stano, M. (SOD-02)	155
Solignac, A. (MOB-02)	108	Stavila, C. (EPA-07)	66
Solimene, L. (MOA-04)	106	Steadman, P. (COB-08)	34
Solimene, L. (SF-03)	7	Stebliy, E. (APC-01)	18
Son, B. (EPA-04)	66	Stebliy, M. (APC-01)	18
Sonehara, M. (MPA-06)	110	Stebliy, M. (APC-05)	19
Sonehara, M. (QPB-03)	144	Stebliy, M. (XPC-08)	212
Sonehara, M. (SF-05)	7	Stefancic, A. (COB-01)	32
Sonehara, M. (SG-06)	8	Steinthal, H. (EPB-06)	68
Sonehara, M. (VPA-09)	184	Stenning, K.D. (SOE-03)	157
Sonehara, M. (VPB-14)	187	Stiles, M.D. (NOB-09)	116
Song, B. (HPA-13)	83	Stiles, M.D. (NOB-11)	116
Song, C. (DOA-01)	46	Stiles, M.D. (PPA-03)	132
Song, J. (AOA-09)	10	Strungaru, M. (SOA-03)	150
Song, J. (DPA-06)	54	Su, J. (COC-01)	35
Song, J. (DPA-11)	55	Su, J. (DPA-10)	55
Song, M. (SOD-07)	156	Su, T. (RPA-02)	149
Song, P. (LOA-12)	102	Su, X. (PPB-06)	133
Song, T. (MPA-02)	110	Su, Y. (QPA-14)	143
Song, Y. (TPB-03)	172	Suárez-Rodríguez, M. (DOC-03)	50

*Best student presentation award finalist

Tajima, K. (GOA-03).....	74	Tanaka, M. (PPB-07).....	133
Takagi, K. (WOB-14).....	192	Tanaka, M. (UOB-01).....	176
Takagi, K. (WOC-01).....	192	Tanaka, M. (UOB-06).....	176
Takagi, K. (WOC-08).....	193	Tanaka, M. (WPC-11).....	201
Takagi, S. (WOC-05).....	192	Tanaka, T. (DPB-02).....	56
Takahashi, K. (EPA-03).....	66	Tanaka, T. (LOA-04).....	101
Takahashi, M. (EOB-13).....	65	Tanaka, T. (UPA-08).....	178
Takahashi, S. (APC-10).....	19	Tanaka, Y. (MPB-07).....	112
Takahashi, S. (MPA-07).....	110	Tanaka, Y. (NPA-01).....	117
Takahashi, S. (OOB-02).....	121	Tanaka, Y. (NPA-03).....	117
Takahashi, T. (ZPA-08).....	222	Tang, B. (TPC-03).....	173
Takahashi, Y. (BOA-10).....	21	Tang, D. (BOC-03).....	24
Takahashi, Y. (OOA-02).....	120	Tang, F. (CPB-04).....	44
Takahashi, Y. (TPB-01).....	171	Tang, J. (AOA-01).....	9
Takahashi, Y. (UOB-06).....	176	Tang, J. (CPA-07).....	42
Takahashi, Y. (VPB-10).....	187	Tang, J. (NPA-15).....	119
Takai, M. (IOA-04).....	84	Tang, K. (DOC-06).....	59
Takai, M. (IPA-01).....	87	Tang, P. (ZOA-05).....	220
Takamura, Y. (MOA-05).....	106	Tang, W. (WOA-04).....	188
Takamura, Y. (NPA-06).....	118	Tang, X. (HPA-13).....	83
Takamura, Y. (XOC-05).....	205	Tang, X. (QOA-06).....	138
Takanashi, K. (AOB-01).....	11	Tang, X. (VOA-07).....	180
Takanashi, K. (BOB-04).....	23	Tang, X. (WOA-02).....	188
Takanashi, K. (DPB-08).....	57	Tang, X. (WOA-05).....	189
Takanashi, K. (XOB-03).....	204	Tang, X. (WOA-09).....	189
Takanashi, K. (XOB-05).....	204	Tang, X. (WOB-07).....	191
Takano, K. (MOA-08).....	106	Tang, X. (WOB-12).....	191
Takashi, Y. (EPA-02).....	66	Tang, Y. (APC-03).....	19
Takata, M. (PL-01).....	1	Tang, Y. (GPA-02).....	75
Takeda, K. (GOA-03).....	74	Tang, Y. (SPA-07).....	162
Takeda, K. (ROB-03).....	148	Tang, Y. (UOA-01).....	174
Takeda, K. (WOA-06).....	189	Tang, Y. (XPB-08).....	210
Takeda, S. (MOB-03).....	108	Tani, H. (OPA-07).....	124
Takemoto, M. (LPA-01).....	103	Tani, H. (OPA-09).....	124
Takemura, Y. (EOB-12).....	65	Taniguchi, K. (KPA-09).....	99
Takemura, Y. (EPA-10).....	67	Taniguchi, R. (FOA-16).....	71
Takemura, Y. (EPA-11).....	67	Taniguchi, R. (KPA-02).....	98
Takemura, Y. (POB-08).....	129	Taniguchi, T. (NOB-07).....	116
Takemura, Y. (PPD-07).....	137	Taniguchi, T. (SOC-13).....	154
Takemura, Y. (XPC-06).....	211	Taniguchi, T. (TPB-08).....	172
Takemura, Y. (XPC-12).....	212	Taniguchi, Y. (OOA-06).....	120
Takeuchi, K. (EPB-04).....	68	Tanii, M. (PPC-09).....	135
Takeuchi, S. (EPA-10).....	67	Taniwaki, M. (YOA-10).....	216
Takeuchi, Y. (BOA-03).....	20	Taniwaki, M. (YPA-04).....	218
Takezawa, M. (VPA-04).....	184	Taniyama, T. (RPA-03).....	149
Takezawa, M. (VPA-10).....	184	Taniyama, T. (TOB-15).....	167
Takezawa, M. (WOC-06).....	193	Taniyama, T. (XPB-05).....	210
Takigawa, H. (ZPA-08).....	222	Tanno, T. (QPB-07).....	145
Takiguchi, K. (UOB-01).....	176	Taparia, D. (AOA-05).....	9
Takorabet, N. (FPA-13).....	73	Taqavi, O. (IOB-05).....	86
Takura, T. (EPA-03).....	66	Tarasov, E. (BPA-04).....	28
Talatchian, P. (NOB-04).....	115	Taris, T. (SG-03).....	8
Talatchian, P. (NOB-09).....	116	Tartakivska, O. (TOA-09).....	164
Talatchian, P. (PPA-03).....	132	Tasaka, K. (OOA-08).....	120
Talatchian, P. (TOB-09).....	166	Tashiro, K. (KPA-19).....	100
Talluri, M. (DPC-09).....	59	Tashli, M. (EPB-07).....	68
Talluri, M. (TOB-05).....	166	Taskaev, S. (UOB-08).....	177
Talluri, M. (XPA-10).....	214	Tatara, G. (AOB-03).....	11
Talmelli, G. (DPA-03).....	54	Tataryn, N. (UPA-04).....	178
Talmelli, G. (QOA-02).....	138	Tataryn, N. (UPA-05).....	178
Tamaki, Y. (IOA-03).....	84	Taubel, A. (QOA-09).....	139
Tamaoka, T. (COB-06).....	33	Taubel, A. (QPA-12).....	143
Tamaru, S. (AOA-06).....	9	Tavabi, A. (COE-09).....	40
Tamaru, S. (DOE-03).....	53	Tavares, M. (TOB-16).....	167
Tamaru, S. (TPB-08).....	172	Tchernyshyov, O. (TPA-06).....	171
Tamion, A. (XOC-11).....	206	Tear, S. (XOA-10).....	203
Tamura, E. (CPA-01).....	41	Teichmann, M. (SOF-05).....	160
Tan, F. (BOC-11).....	26	Teixeira, B. (NOB-04).....	115
Tan, H. (APB-12).....	18	Teixeira, B. (OPB-05).....	125
Tan, W.K. (PPB-11).....	134	Tejaswi, K. (QPA-01).....	142
Tan, X. (LPA-17).....	105	Teki, Y. (DPA-14).....	55
Tanabe, K. (QPA-03).....	142	Telling, N. (EOA-03).....	61
Tanaka, F. (MPA-09).....	110	Temdie-Kom, L. (ROA-07).....	147
Tanaka, H. (PPB-05).....	133	Temst, K. (TOB-04).....	165
Tanaka, K. (EPA-01).....	65	Tene Deffo, Y. (ZOA-03).....	219
Tanaka, K. (WOD-05).....	195	Teng, Y. (KPA-21).....	100
Tanaka, M. (POA-10).....	127	Teo, K. (OOB-01).....	121

*Best student presentation award finalist

Teobaldi, G. (OOB-15)	123	Toyoki, K. (BOB-12)	24
Terada, N. (QOA-06)	138	Toyoki, K. (QPB-12)	145
Terada, N. (YPA-06)	219	Toyonaga, K. (VOA-09)	180
Terada, S. (VOB-07)	182	Tran, L.T. (WPA-07)	197
Terada, S. (VOB-15)	183	Tranchida, J. (ROB-05)	148
Terao, K. (SPA-10)	162	Trastoy, J. (SG-03)	8
Tereshina-Chitrova, E. (XPA-06)	213	Tremsin, A. (YOA-03)	215
Teresi, S. (APC-12)	20	Trevillian, C. (SB-03)	3
Teresi, S. (CPB-13)	45	Trevillian, C. (SOD-09)	156
Teresi, S. (DOB-11)	49	Trichet, D. (FOA-12)	71
Terui, Y. (POC-08)	131	Trisnanto, S. (EOB-12)	65
Terwey, A. (QOA-05)	138	Trisnanto, S. (EPA-10)	67
Tezuka, N. (APB-09)	17	Trisnanto, S. (EPA-11)	67
Tham, K. (NPA-01)	117	Trisnanto, S. (POB-08)	129
Tham, K. (NPA-02)	117	Truglas, T. (UPA-07)	178
Thao, N. (POA-14)	128	Tsafack, P. (MOB-02)	108
Thébault, C. (EOB-01)	63	Tsai, C. (DOA-04)	46
Thiaville, A. (COA-02)	31	Tsai, H. (BOA-07)	21
Thielsch, J. (WOB-02)	190	Tsai, L. (CPB-10)	45
Thierry, N. (SOD-13)	157	Tsai, M. (BPA-05)	28
Thiesen, E. (SF-06)	7	Tsai, M. (HPA-07)	82
Thiringer, T. (IOA-08)	85	Tsai, M. (IPB-05)	89
Thoma, H. (SOC-11)	154	Tsai, M. (JPB-16)	96
Thomas, A. (YOB-06)	217	Tsai, M. (JPB-18)	96
Thompson, R. (APB-07)	17	Tsai, T. (UPA-11)	179
Thomson, T. (APA-08)	16	Tsay, J. (XPA-05)	213
Thunstrom, P. (SOF-05)	160	Tschirky, M. (VPA-03)	183
Tian, B. (VPB-13)	187	Tseng, C. (BOC-03)	24
Tian, C. (POA-14)	128	Tseng, Y. (DOB-04)	48
Tian, Z. (PPB-14)	134	Tseng, Y. (DPB-07)	57
Tiberto, P. (EOB-03)	63	Tseng, Y. (OOB-11)	122
Titova, A. (OOB-09)	122	Tsipas, P. (COE-05)	39
Tjong, J. (IOB-05)	86	Tsuchida, Y. (JOA-07)	91
Tkachenko, I. (BPA-04)	28	Tsuchida, Y. (KPA-08)	99
Toda, A. (VOA-03)	179	Tsujikawa, M. (AOA-08)	10
Toda, Y. (BPA-18)	30	Tsujikawa, M. (APA-03)	15
Toh, Y. (APB-12)	18	Tsujikawa, M. (DOD-02)	51
Tohara, M. (PPC-07)	135	Tsujikawa, M. (SA-05)	2
Tokatly, I. (AOC-10)	14	Tsukahara, A. (EPA-01)	65
Toko, K. (NOA-10)	114	Tsukazaki, A. (DOB-08)	49
Tokuda, M. (BOA-08)	21	Tsunata, R. (LPA-01)	103
Tokuda, Y. (DPA-02)	54	Tsunegi, S. (NOB-07)	116
Tokunaga, K. (APC-11)	19	Tsunegi, S. (TOB-09)	166
Tokunaga, K. (COB-06)	33	Tsunegi, S. (TPB-08)	172
Tokunaga, T. (XPC-03)	211	Tsunematsu, S. (EPA-01)	65
Tokunaga, Y. (SOC-11)	154	Tsunoda, M. (APA-03)	15
Tokura, Y. (COB-09)	34	Tsutsui, K. (COC-03)	35
Tokura, Y. (SOC-11)	154	Tsutsumi, R. (BOB-09)	23
Tokura, Y. (YOA-06)	215	Tsuyuguchi, N. (EPA-06)	66
Tom, R. (OOA-07)	120	Tsymbal, E.Y. (BOA-06)	21
Tom, R. (OPA-08)	124	Tsymbal, E.Y. (BOC-10)	25
Tomasello, R. (CPA-14)	43	Tsymbal, E.Y. (DOD-01)	51
Tomasello, R. (POA-05)	127	Tu, C. (ROB-02)	148
Tominaga, K. (WOC-05)	192	Tu, Y. (DOA-06)	47
Tomita, N. (JOA-04)	91	Tullo, P. (NOB-08)	116
Tomita, S. (TOB-11)	166	Tumbleson, R. (YOA-03)	215
Tomita, S. (ZPA-02)	221	Tung, Y. (UPA-11)	179
Tomita, T. (BOA-04)	20	Tungasmita, S. (XPA-07)	213
Tomita, Y. (COB-06)	33	Tuo, F. (AOB-08)	12
Tomoda, T. (DPA-09)	55	Turcato, M. (SOF-05)	160
Tomoyuki, S. (AOA-05)	9	Turnbull, L. (COB-08)	34
Tong, C. (HOA-05)	80	Turnbull, L. (COE-10)	41
Tong, S. (APB-05)	17	Turrillas, X. (XOD-01)	207
Tong, Z. (TOC-04)	168	Tyberkevych, V. (NOB-06)	116
Tonthat, L. (EOA-11)	63	Tyberkevych, V. (NPA-12)	119
Tonthat, L. (XOC-04)	205	Tyberkevych, V. (SB-03)	3
Torii, T. (EPB-13)	69	Tyberkevych, V. (SOD-09)	156
Torosyan, G. (DOC-13)	51		
Torres, T.E. (EOA-05)	61		
Tounzi, A. (IPB-11)	90		
Tounzi, A. (MOB-05)	108		
Tournus, F. (XOC-11)	206		
Toutsop, B. (MOB-02)	108		
Toy, A. (EOB-02)	63		
Toyama, R. (XOD-02)	207		
Toyoki, K. (BOB-08)	23		
Toyoki, K. (BOB-09)	23		

- U -

Ubadigha, C.U. (JPB-16)	96
Uchida, K. (AOA-02)	9
Uchida, K. (AOB-01)	11
Uchida, K. (DOA-05)	46
Uchida, K. (DOC-04)	50
Uchida, K. (WOA-05)	189
Uchida, K. (ZOA-05)	220

*Best student presentation award finalist

Uchida, Y. (KPA-16)	100	Valvidares, M. (COE-06)	40
Uchimoto, T. (MOB-03)	108	Valvidares, M. (OOB-15)	123
Uchimura, T. (BOA-03)	20	van't Erve, O.M. (COD-02)	37
Uchino, D. (KPA-10)	99	Van Beek, S. (OOB-06)	121
Uchino, D. (KPA-12)	99	Van Beek, S. (OOB-08)	122
Uchino, D. (KPA-16)	100	van der Laan, G. (SOA-02)	150
Uchino, D. (MPB-01)	112	van der Sar, T. (SB-01)	3
Uchiyama, T. (POB-04)	128	van Dijken, S. (DOE-04)	53
Uchiyama, T. (PPA-04)	132	van Dijken, S. (DOE-06)	53
Uchiyama, T. (RPA-05)	149	van Dijken, S. (SOF-09)	161
Uchiyama, T. (YOA-11)	216	van Dijken, S. (TOA-06)	164
Uda, R. (WPB-09)	199	van Dijken, S. (TPB-12)	173
Ueda, H. (EPA-08)	66	van Duijn, F. (BOB-03)	22
Uehara, G. (EPB-11)	69	Van Houdt, J. (TOB-04)	165
Uehara, Y. (SF-04)	7	Van Kuiken, B.E. (SOF-05)	160
Uehara, Y. (VOB-05)	181	Van Waeyenberge, B. (ZOA-02)	219
Uehara, Y. (VPB-03)	186	Vanakalapu, V. (XOA-05)	202
Uemura, T. (APC-08)	19	Vanderveken, F. (QOA-02)	138
Uemura, T. (DPB-08)	57	Vanstone, A. (SOE-03)	157
Ueno, A. (PPC-09)	135	Varela, M. (XOD-01)	207
Ueno, S. (EOB-07)	64	Varga, M. (QPA-06)	142
Ueno, S. (EPB-05)	68	Varga, R. (QPA-06)	142
Uesugi, R. (YOB-04)	217	Vasconcelos, P. (COE-08)	40
Ueyama, S. (YOA-09)	216	Vashisht, G. (DPA-09)	55
Uhlir, V. (ROA-03)	146	Vashist, A. (COE-01)	39
Uhlir, V. (XOA-01)	201	Vasili, H. (BOB-11)	23
Ujimoto, K. (BOB-08)	23	Vasquez Mansilla, M. (EOA-05)	61
Ujimoto, K. (BOB-09)	23	Vasyuchka, V.I. (SOD-05)	155
Ukleev, V. (YOA-06)	215	Vasyuchka, V.I. (SOE-01)	157
Ullah, W. (HPA-04)	81	Vavassori, P. (ZOA-04)	220
Ullah, W. (IOA-02)	84	Vaz, D. (AOC-10)	14
Ullah, W. (IOB-02)	86	Vaz, D. (DOC-03)	50
Umekawa, Y. (FOA-14)	71	Vázquez, M. (SD-01)	5
Umetsu, N. (DPA-02)	54	Vázquez, M. (VOA-04)	180
Umetsu, R.Y. (DPB-08)	57	Vecchiola, A. (SOD-03)	155
Umetsu, R.Y. (UOB-08)	177	Vedmedenko, E.Y. (ZOA-01)	219
Umetsu, R.Y. (UOB-10)	177	Veiga, L. (BOD-03)	26
Umetsu, R.Y. (UPA-08)	178	Velez, M. (TOB-13)	167
Umetsu, R.Y. (VPB-08)	186	Verba, R.V. (SOC-04)	153
Umetsu, S. (VPB-10)	187	Verba, R.V. (SOC-09)	153
Une, Y. (WOA-12)	189	Verba, R.V. (SOD-08)	156
Upadhyaya, P. (SD-02)	5	Vereijken, A. (XOA-05)	202
Urabe, K. (OPA-03)	124	Vergara-Ortega, J. (WOD-08)	195
Urakawa, K. (QPB-07)	145	Vergnaud, C. (COC-11)	37
Urakawa, K. (VPB-06)	186	Vergnaud, C. (COD-09)	38
Urata, A. (PPB-03)	133	Vergnaud, C. (COE-08)	40
Urata, A. (VPA-06)	184	Vergne, C. (POC-11)*	131
Urbánek, M. (SOC-04)	153	Vergniory, M. (COE-02)	39
Urbánek, M. (SOD-02)	155	Vergniory, M. (SA-03)	2
Urbánek, M. (SOD-08)	156	Vicente Arche, L. (APC-12)	20
Urbánek, M. (SPA-11)	163	Victoria, R. (NOA-08)	114
Urbánek, M. (SPA-17)	163	Viereck, T. (SC-04)	4
Urretavizcaya, G. (EOA-05)	61	Vila, L. (APC-12)	20
Us-Saleheen, A. (YOA-03)	215	Vila, L. (CPB-13)	45
Usami, T. (ROA-05)	147	Vila, L. (DOB-11)	49
Usami, T. (ROA-06)	147	Vila, L. (DPC-06)	59
Usami, T. (TOB-15)	167	Vila, L. (SOD-13)	157
Utsumi, Y. (NOB-07)	116	Villanueva, D. (EOA-01)	61
Uzuhashi, J. (AOA-06)	9	Villanueva, D. (EOA-10)	62
Uzuhashi, J. (VOA-03)	179	Vincent, A. (SG-03)	8
- V -			
Valcu, B. (OOA-04)	120	Viola Kusminskiy, S. (TOA-12)	165
Valdés, D.P. (EOA-05)	61	Vir, P. (YOB-06)	217
Valencia, S. (BOB-05)	23	Viret, M. (ROB-05)	148
Valencia, S. (SC-06)	5	Viret, M. (SOF-04)	159
Valenzuela, S.O. (COE-04)	39	Virnau, P. (COA-10)	32
Valenzuela, S.O. (COE-06)	40	Virnau, P. (CPA-13)	43
Valera, A. (XOD-03)	207	Visonà, A. (EOB-01)	63
Vališka, M. (XPA-06)	213	Vivchar, V.I. (ZPA-13)	223
Vallejo Fernandez, G. (OOB-12)	122	Vlaminck, V. (ROA-07)	147
Vallejo Fernandez, G. (POC-07)	131	Vojáček, L. (COA-04)	31
Vallobra, P. (BOD-02)	26	Vojáček, L. (COC-07)	36
Vallobra, P. (BPA-03)	28	Vojáček, L. (COC-11)	37
Vallobra, P. (XPB-07)	210	Volegov, A. (QPA-15)	143
Valvidares, M. (BOB-11)	23	von Freymann, G. (SOF-07)	160
		von Freymann, G. (TOB-06)	166
		von Korff Schmising, C. (SOF-04)	159

*Best student presentation award finalist

Voronov, A. (SOD-08)	156
Voronov, A. (SPA-11).	163
Voronov, A. (SPA-17)	163
Vourlias, G. (DOC-13).	51
Vovk, S. (VOB-11).	182
Vucemilovic, A. (SE-04)	6

- W -

Wada, K. (MOA-08)	106
Wada, K. (MPA-07)	110
Wada, N. (WOC-05)	192
Wadley, P. (XOB-01)	203
Wagatsuma, Y. (DOA-08)	47
Wagatsuma, Y. (XOB-08)	204
Wagner-Reetz, M. (OOB-09).	122
Wagner-Reetz, M. (XOA-04).	202
Wagner, K. (AOB-05)	11
Wahyuni, S. (XPC-07).	211
Wakabayashi, D. (IOA-04)	84
Wakabayashi, D. (IPA-01)	87
Wakabayashi, D. (VPA-13)	185
Wakabayashi, D. (YOA-11).	216
Wakabayashi, H. (COC-03).	35
Wan, C. (AOB-12).	12
Wan, C. (AOC-03).	13
Wan, C. (APC-07)	19
Wan, L. (YOA-02).	214
Wan, Z. (VPA-11)	185
Wang, B. (BOC-05)	25
Wang, B. (BPA-05)	28
Wang, B. (COC-01)	35
Wang, B. (HPA-19)	83
Wang, C. (BPA-08)	29
Wang, C. (GPA-16)	77
Wang, C. (QOA-08).	139
Wang, C. (ROB-02)	148
Wang, C. (RPA-04)	149
Wang, D. (JPA-02).	92
Wang, D. (QPA-07)	143
Wang, F. (MPA-14)	111
Wang, G. (OOB-07).	122
Wang, G. (UOA-02).	174
Wang, G. (ZPA-10)	222
Wang, H. (BOD-02).	26
Wang, H. (BPA-03)	28
Wang, H. (IPA-02).	87
Wang, H. (JPA-01).	92
Wang, H. (JPA-02).	92
Wang, H. (JPB-05).	95
Wang, H. (LPA-02)	103
Wang, H. (POA-04)	126
Wang, H. (PPA-02)	132
Wang, H. (PPB-13)	134
Wang, H. (WOB-06)	191
Wang, J. (BOD-02)	26
Wang, J. (KPA-20).	100
Wang, J. (LPA-12)	104
Wang, J. (MOA-12)	107
Wang, J. (MOA-16)	107
Wang, J. (NOB-12)	117
Wang, J. (OOB-03)	121
Wang, J. (WOA-04).	188
Wang, J.K. (OPB-04).	125
Wang, K. (BOC-05)	25
Wang, K. (COD-03).	37
Wang, K. (JOA-09)	91
Wang, K. (JPB-02).	94
Wang, L. (APA-11)	16
Wang, L. (COD-10)	38
Wang, L. (GPB-02)	78
Wang, L. (IOB-04).	86
Wang, L. (IPA-07)	88
Wang, L. (JPB-08).	95
Wang, L. (LOA-11)	102
Wang, L. (LPA-09).	104
Wang, M. (CPB-01).	44

Wang, M. (GPB-11)	79
Wang, M. (IPB-09).	90
Wang, M. (IPB-12).	90
Wang, N. (WOC-10)	193
Wang, P. (TPA-07).	171
Wang, Q. (SOC-04)	153
Wang, Q. (SOD-08)	156
Wang, Q. (SOD-10)	156
Wang, Q. (SPA-11).	163
Wang, Q. (SPA-17)	163
Wang, R. (BOD-04)	27
Wang, R. (HPA-19)	83
Wang, R. (LOA-07)	102
Wang, S. (IPB-01)	89
Wang, S. (NPA-14)	119
Wang, S. (QPA-07)	143
Wang, S. (ZPA-12).	223
Wang, S.X. (EOB-06)	64
Wang, T. (GPA-15).	77
Wang, T. (LPA-07).	103
Wang, W. (BOA-11).	22
Wang, W. (GPA-14)	76
Wang, W. (GPA-15)	77
Wang, W. (HOA-06)	80
Wang, W. (MOB-08)	109
Wang, W. (QOA-08)	139
Wang, W. (TOA-05).	164
Wang, X. (COA-12).	32
Wang, X. (COB-11)	34
Wang, X. (CPA-07)	42
Wang, X. (IPA-04).	87
Wang, X. (KPA-14)	99
Wang, X. (LPA-16)	104
Wang, X. (OOB-03)	121
Wang, Y. (COA-12)	32
Wang, Y. (CPB-07).	45
Wang, Y. (DOE-05)	53
Wang, Y. (GPA-07)	76
Wang, Y. (HPA-20)	84
Wang, Y. (IPA-03)	87
Wang, Y. (IPB-02)	89
Wang, Y. (JPA-03)	92
Wang, Y. (JPA-04)	93
Wang, Y. (JPA-06)	93
Wang, Y. (JPA-07)	93
Wang, Y. (JPA-08)	93
Wang, Y. (JPA-12)	93
Wang, Y. (JPA-16)	94
Wang, Y. (JPB-06)	95
Wang, Y. (OPB-06)	125
Wang, Y. (PPC-04).	135
Wang, Y. (RPA-06).	149
Wang, Y. (SC-04).	4
Wang, Y. (TPB-07).	172
Wang, Y. (WOD-14).	196
Wang, Y. (XOA-03)	202
Wang, Y. (XOC-09)	206
Wang, Y. (ZOA-07)	220
Wang, Z. (AOC-11)	14
Wang, Z. (COA-12)	32
Wang, Z. (CPA-02)	41
Wang, Z. (HPA-19)	83
Wang, Z. (MOB-11).	109
Wang, Z. (MPB-10)	113
Wang, Z. (OPB-06)	125
Wang, Z. (SOE-10)	158
Wang, Z. (WOA-12)	189
Warot-Fonrose, B. (ROA-07).	147
Watahiki, S. (DPC-05)	59
Watanabe, E. (XOD-09).	208
Watanabe, H. (TOA-10).	164
Watanabe, H. (XPB-01).	209
Watanabe, J. (TPC-09).	174
Watanabe, M. (BOA-08)	21
Watanabe, M. (QPB-07).	145
Watanabe, S. (SOA-09)	150
Watanabe, S. (YOB-02).	216

*Best student presentation award finalist

Watanabe, T. (SPA-01).....	161	Waltersdorf, G. (DOA-11).....	47
Watarai, A. (IOA-01).....	84	Won, S. (GPA-06).....	75
Wawro, A. (XOB-10).....	205	Won, S. (GPB-14).....	79
Weber, D. (EOB-14).....	65	Won, W. (BPA-15).....	30
Weber, M. (SOF-02).....	159	Won, Y. (GPB-09).....	78
Wei, D. (AOB-07).....	12	Wong, T. (ZOA-11).....	220
Wei, D. (APC-13).....	20	Wong, Y. (WPA-05).....	197
Wei, D. (BPA-05).....	28	Wong, Y. (WPA-06).....	197
Wei, D. (COB-12).....	34	Wong, Y. (WPB-11).....	199
Wei, D. (ROB-02).....	148	Woo, J. (GPB-05).....	78
Wei, G. (VOA-10).....	180	Woo, J. (HPA-12).....	83
Wei, G. (XOB-09).....	205	Woo, J. (LPA-08).....	104
Wei, J. (AOB-12).....	12	Wood, R. (OOA-04).....	120
Wei, J. (BOC-03).....	24	Woodcock, T. (WOD-07).....	195
Wei, L. (LPA-17).....	105	Woods, J. (YOA-03).....	215
Wei, P. (FPA-07).....	73	Wostyn, K. (DOE-02).....	53
Wei, Q. (FOA-02).....	70	Wrona, J. (NOB-09).....	116
Wei, Z. (JOA-14).....	92	Wu, C. (CPB-10).....	45
Wei, Z. (QOB-12).....	141	Wu, D. (QOB-12).....	141
Weigand, M. (COB-01).....	32	Wu, H. (BOC-05).....	25
Weigand, M. (COE-10).....	41	Wu, H. (COD-03).....	37
Weigand, M. (SOC-10).....	154	Wu, H. (CPB-01).....	44
Weigand, M. (SPA-09).....	162	Wu, H. (NPA-15).....	119
Weirather, T. (TOC-11).....	169	Wu, J. (BOD-04).....	27
Weiss, M.A. (SOF-06).....	160	Wu, J. (DPA-10).....	55
Weißenhofer, M. (COB-13).....	34	Wu, J. (SPA-06).....	162
Weip, U. (SB-03).....	3	Wu, J. (XOA-03).....	202
Weip, U. (SOD-07).....	156	Wu, K. (KPA-14).....	99
Wen, H. (GPA-15).....	77	Wu, L. (JPA-06).....	93
Wen, H. (GPA-17).....	77	Wu, L. (JPA-07).....	93
Wen, H. (MPA-13).....	111	Wu, M. (BOA-04).....	20
Wen, J. (COC-09).....	36	Wu, P. (DOA-06).....	47
Wen, X. (FPA-07).....	73	Wu, P. (IOB-06).....	86
Wen, Y. (PPC-04).....	135	Wu, S. (BOC-11).....	26
Wen, Z. (AOA-09).....	10	Wu, S. (DOC-05).....	50
Wen, Z. (APA-10).....	16	Wu, S. (JPA-04).....	93
Wen, Z. (DOC-06).....	50	Wu, T. (BPA-16).....	30
Wen, Z. (DPA-06).....	54	Wu, X. (IPB-06).....	89
Wen, Z. (DPA-11).....	55	Wu, X. (KPA-14).....	99
Wen, Z. (DPC-09).....	59	Wu, Y. (APA-01).....	14
Wende, H. (QOA-05).....	138	Wu, Y. (BOA-05).....	21
Wende, H. (SOF-05).....	160	Wu, Y. (CPB-11).....	45
Wende, H. (XOA-07).....	202	Wu, Y. (DOB-04).....	48
Wende, H. (YOA-05).....	215	Wu, Y. (DPB-03).....	56
Wereley, N. (ZOA-10).....	220	Wu, Y. (DPB-07).....	57
Wereley, N. (ZOA-12).....	221	Wu, Y. (DPC-04).....	59
Werwinski, M. (XPB-11).....	210	Wu, Y. (HPA-07).....	82
Werwinski, M. (YOB-08).....	217	Wu, Y. (OOB-11).....	122
Weßels, T. (XOA-07).....	202	Wu, Y. (PPD-05).....	137
Wewer, L. (VPA-01).....	183	Wu, Y. (TU-02).....	1
White, J.S. (YOA-06).....	215	Wust, S. (BOB-05).....	23
Wickramaratne, D. (COD-02).....	37	Wust, S. (SOF-03).....	159
Wiedwald, U. (QPA-05).....	142		
Wiekhorst, F. (SC-05).....	4		
Wiekhorst, F. (ZOA-02).....	219		
Wiemer, M. (MOA-10).....	107		
Wilgocka-Slezak, D. (NOA-01).....	113		
Wilhelm, F. (QOA-05).....	138		
Wilhelm, F. (XOC-11).....	206		
Wilhelm, F. (XPB-06).....	210		
Wilhelm, F. (YOA-05).....	215		
Wilson, A. (VOB-12).....	182		
Wilson, M. (COB-08).....	34		
Winkler, T. (COA-10).....	32		
Winter, M. (YOB-06).....	217		
Wintz, S. (COB-01).....	32		
Wintz, S. (COB-13).....	34		
Wintz, S. (COE-10).....	41		
Wintz, S. (SOC-10).....	154		
Wintz, S. (SPA-09).....	162		
Wissmann, M. (DOB-11).....	49		
Withers, F. (SOA-03).....	150		
Wojewoda, O. (SOC-04).....	153		
Wojewoda, O. (SOD-02).....	155		
Wojewoda, O. (SPA-17).....	163		
Wolf, G. (OOB-09).....	122		
Wolf, M. (DOA-11).....	47		

- X -

Xi, L. (QPA-07).....	143
Xi, X. (BOA-11).....	22
Xia, C. (LOA-09).....	102
Xia, Q. (BPA-08).....	29
Xia, W. (YPA-08).....	219
Xiang, Z. (HPA-08).....	82
Xiang, Z. (JPB-13).....	96
Xiang, Z. (JPB-14).....	96
Xiang, Z. (JPB-15).....	96
Xiang, Z. (LPA-07).....	103
Xiao, C. (NPA-15).....	119
Xiao, D. (COE-01).....	39
Xiao, D. (HOA-06).....	80
Xiao, D. (LOA-03).....	101
Xiao, F. (HPA-10).....	82
Xiao, F. (IPA-04).....	87
Xiao, F. (JPA-10).....	93
Xiao, J. (AOB-11).....	12
Xiao, J. (COC-02).....	35
Xiao, L. (GPA-11).....	76
Xiao, L. (LPA-06).....	103
Xiao, R. (OOB-07).....	122

*Best student presentation award finalist

Xiao, R. (POA-01).....	126	Yakushiji, K. (TPB-08).....	172
Xiao, Y. (DOA-03).....	46	Yamada, A. (XOB-08).....	204
Xiao, Y. (EOB-09).....	64	Yamada, K. (BOA-10).....	21
Xiao, Y. (HPA-09).....	82	Yamada, K. (CPA-08).....	42
Xie, B. (XPC-04).....	211	Yamada, K. (DPB-10).....	57
Xie, H. (BOA-05).....	21	Yamada, K. (DPB-11).....	57
Xie, R. (XOA-07).....	202	Yamada, K. (TPC-09).....	174
Xie, Y. (GPA-02).....	75	Yamada, K. (XPA-03).....	213
Xie, Y. (GPA-03).....	75	Yamada, K. (XPC-09).....	212
Xie, Y. (GPA-04).....	75	Yamada, M. (DOA-08).....	47
Xie, Z. (APC-13).....	20	Yamada, M. (XOB-08).....	204
Xin, Y. (BOC-02).....	24	Yamada, S. (ROA-06).....	147
Xing, G. (DPA-08).....	54	Yamada, S. (TOB-15).....	167
Xiong, D. (OOB-07).....	122	Yamada, Y. (WOC-05).....	192
Xu, B. (JPB-06).....	95	Yamaga, M. (OPA-02).....	123
Xu, C. (OOA-01).....	119	Yamagami, K. (COE-07).....	40
Xu, D. (IOB-07).....	86	Yamaguchi-Sekino, S. (EPB-09).....	69
Xu, D. (PPC-14).....	136	Yamaguchi, A. (OPA-01).....	123
Xu, F. (QOA-08).....	139	Yamaguchi, A. (TOB-07).....	166
Xu, H. (CPB-01).....	44	Yamaguchi, A. (XPA-03).....	213
Xu, J. (FPA-09).....	73	Yamaguchi, H. (WPB-01).....	198
Xu, J. (JOA-03).....	91	Yamaguchi, M. (MPA-08).....	110
Xu, K. (FPA-04).....	72	Yamaguchi, M. (POA-06).....	127
Xu, K. (FPA-08).....	73	Yamaguchi, S. (KPA-08).....	99
Xu, L. (IOB-07).....	86	Yamaguchi, T. (DOC-07).....	50
Xu, L. (JPB-11).....	95	Yamaguchi, T. (EPA-01).....	65
Xu, L. (LPA-07).....	103	Yamaguchi, T. (MOA-02).....	105
Xu, Q. (IOA-11).....	85	Yamaguchi, W. (WOC-01).....	192
Xu, S. (IPA-07).....	88	Yamaguchi, W. (WOC-08).....	193
Xu, S. (LPA-14).....	104	Yamaguchi, Y. (XOD-13).....	209
Xu, W. (IPA-12).....	88	Yamaguchi, Y. (XPA-11).....	214
Xu, W. (LPA-02).....	103	Yamahara, H. (SPA-10).....	162
Xu, W. (LPA-09).....	104	Yamake, A. (DOC-07).....	50
Xu, X. (APA-01).....	14	Yamake, A. (DPC-12).....	60
Xu, X. (CPB-11).....	45	Yamaki, M. (VPA-06).....	184
Xu, X. (DPB-03).....	56	Yamamoto, D. (ROB-03).....	148
Xu, X. (DPC-04).....	59	Yamamoto, H. (CPB-05).....	44
Xu, X. (JPA-06).....	93	Yamamoto, H. (WOD-04).....	195
Xu, X. (JPA-07).....	93	Yamamoto, K. (DOA-07).....	47
Xu, X. (OPB-11).....	126	Yamamoto, K. (SB-01).....	3
Xu, X. (UOB-08).....	177	Yamamoto, K. (SB-04).....	3
Xu, Y. (AOA-03).....	9	Yamamoto, K. (SOD-04).....	155
Xu, Y. (AOA-07).....	10	Yamamoto, K. (TOB-17).....	168
Xu, Y. (AOB-07).....	12	Yamamoto, M. (GOA-03).....	74
Xu, Y. (BOD-04).....	27	Yamamoto, M. (WPC-02).....	200
Xu, Y. (DPA-10).....	55	Yamamoto, R. (FPA-06).....	72
Xu, Y. (GOA-02).....	74	Yamamoto, S. (BOB-13).....	24
Xu, Y. (GPA-01).....	75	Yamamoto, S. (XOD-13).....	209
Xu, Y. (GPA-11).....	76	Yamamoto, T. (AOA-06).....	9
Xu, Y. (GPB-06).....	78	Yamamoto, T. (DOE-01).....	52
Xu, Y. (GPB-12).....	79	Yamamoto, T. (DOE-03).....	53
Xu, Y. (JPA-02).....	92	Yamamoto, T. (TPB-08).....	172
Xu, Y. (LPA-06).....	103	Yamamoto, T. (XOB-05).....	204
Xu, Y. (NOA-06).....	114	Yamamura, S. (EOB-11).....	65
Xu, Y. (SOA-01).....	149	Yamamura, S. (PPC-10).....	135
Xu, Y. (XOA-03).....	202	Yamamuro, S. (WPC-07).....	200
Xu, Z. (BOC-02).....	24	Yamanaka, C. (NPA-11).....	118
Xue, H. (JOA-14).....	92	Yamanaka, S. (WPC-01).....	200

- Y -

Yabukami, S. (EOA-11).....	63	Yamashita, A. (VPB-05).....	186
Yabukami, S. (EOA-12).....	63	Yamashita, A. (WPA-09).....	197
Yabukami, S. (EOB-13).....	65	Yamashita, A. (WPA-13).....	197
Yabukami, S. (PPC-15).....	136	Yamashita, A. (WPA-15).....	198
Yabukami, S. (XOC-04).....	205	Yamashita, A. (WPB-01).....	198
Yadav, R. (NOB-10).....	116	Yamashita, A. (WPC-06).....	200
Yagi, K. (FOA-16).....	71	Yamashita, A. (WPC-08).....	200
Yagi, K. (KPA-02).....	98	Yamashita, A. (XPA-11).....	214
Yagmur, A. (CPB-14).....	46	Yamashita, A. (XPB-12).....	210
Yagmur, A. (QPA-03).....	142	Yamashita, T. (WPC-02).....	200
Yahya, I.M. (XPC-07).....	211	Yamauchi, S. (DPA-16).....	56
Yakovleva, M. (QPA-15).....	143	Yamauchi, Y. (YOB-07).....	217
Yakushiji, K. (AOA-06).....	9	Yamaura, J. (XOD-02).....	207
Yakushiji, K. (DOE-01).....	52	Yamazaki, K. (GOA-04).....	74
Yakushiji, K. (DOE-03).....	53	Yamazaki, K. (GPA-05).....	75
Yakushiji, K. (TOB-09).....	166	Yamazaki, M. (WPA-02).....	196

*Best student presentation award finalist

Yamazaki, T. (BOB-04)	23	Yano, M. (SA-06)	2
Yamazaki, T. (DPB-08)	57	Yano, M. (WOA-01)	188
Yamazaki, T. (DPB-15)	58	Yano, M. (WOA-03)	188
Yamazaki, T. (QOB-08)	141	Yano, M. (WOC-13)	194
Yamazaki, T. (YOA-10)	216	Yao, C.J. (POB-06)	129
Yamazaki, T. (YPA-04)	218	Yao, H. (POB-02)	128
Yan, A. (WOC-10)	193	Yao, K. (SOF-04)	159
Yan, A. (WPB-13)	199	Yao, R. (PPA-04)	132
Yan, A. (YPA-08)	219	Yao, X. (WOC-10)	193
Yan, B. (AOB-11)	12	Yao, Y. (VPB-11)	187
Yan, B. (BOA-05)	21	Yap, S.L. (APB-12)	18
Yan, C. (MOB-08)	109	Yaroslavtsev, A. (SOF-05)	160
Yan, K. (QOA-04)	138	Yasin, F.S. (COB-09)	34
Yan, P. (SOE-10)	158	Yasin, F.S. (COE-10)	41
Yan, W. (QOB-12)	141	Yastrubchak, O. (UPA-04)	178
Yan, Y. (DPA-10)	55	Yasuda, T. (NOA-10)	114
Yan, Y. (XOA-03)	202	Yasufuku, H. (UOB-06)	176
Yanagihara, H. (EPA-05)	66	Yasuhito, T. (MOB-01)	108
Yanagihara, H. (PPB-05)	133	Yatmeidhy, A.M. (ROA-02)	146
Yanagita, S. (XOD-13)	209	Yatmeidhy, A.M. (ROA-05)	147
Yanai, T. (VPB-05)	186	Yayama, T. (WPC-05)	200
Yanai, T. (WPA-09)	197	Yazdanpanah, R. (KPA-21)	100
Yanai, T. (WPA-13)	197	Ye, L. (BPA-16)	30
Yanai, T. (WPA-15)	198	Ye, X. (XOC-09)	206
Yanai, T. (WPB-01)	198	Yee, S. (ZPA-14)	223
Yanai, T. (WPC-06)	200	Yefremenko, V.G. (SB-03)	3
Yanai, T. (WPC-08)	200	Yen, S. (IPB-04)	89
Yanai, T. (XPA-11)	214	Yen, Y. (BOC-03)	24
Yanai, T. (XPB-12)	210	Yerin, C.V. (ZPA-13)	223
Yanase, Y. (ZPA-01)	221	Yi, B. (NOA-02)	113
Yang, C. (BOC-08)	25	Yi, B. (OPB-12)	126
Yang, C. (BOD-06)	27	Yildirim, O. (CPA-14)	43
Yang, C. (PPD-07)	137	Yin, J. (POA-01)	126
Yang, C. (UPA-11)	179	Yin, L. (JPA-06)	93
Yang, F. (GPA-03)	75	Yin, L. (JPA-07)	93
Yang, F. (ZPA-10)	222	Yin, M. (FOA-12)	71
Yang, H. (COB-11)	34	Yin, T. (CPB-04)	44
Yang, H. (COE-02)	39	Yin, W. (LOA-08)	102
Yang, H. (COE-03)	39	Yin, W. (LPA-18)	105
Yang, H. (DOC-03)	50	Yin, W. (LPA-20)	105
Yang, H. (JPB-09)	95	Yin, Z. (LPA-11)	104
Yang, H. (LPA-10)	104	Ying, S. (COB-02)	33
Yang, H. (NOB-01)	115	Ying, Y. (VOB-02)	181
Yang, J. (JPA-02)	92	Yodoshi, N. (UOB-10)	177
Yang, J. (JPA-15)	94	Yojiro, O. (YPA-06)	219
Yang, J. (JPB-01)	94	Yokoe, T. (WPC-14)	201
Yang, J. (JPB-05)	95	Yokohama, N. (XPB-02)	209
Yang, J. (JPB-10)	95	Yokoi, A. (PPB-11)	134
Yang, J. (MPB-05)	112	Yokoi, N. (DOA-07)	47
Yang, J. (MPB-09)	113	Yokoi, N. (TOB-17)	168
Yang, J. (TPA-01)	170	Yokomichi, K. (LPA-01)	103
Yang, K. (DPC-04)	59	Yokosawa, M. (KPA-05)	98
Yang, K. (GPA-07)	76	Yokoyama, K. (EPA-01)	65
Yang, K. (HOA-04)	80	Yoon, H. (OOB-09)	122
Yang, K. (IOB-03)	86	Yoon, J. (BOA-03)	20
Yang, L. (DPA-10)	55	Yoon, J. (DPB-01)	56
Yang, M. (DPC-04)	59	Yoon, J. (EPA-04)	66
Yang, P. (TOC-04)	168	Yoon, J. (IPA-05)	88
Yang, Q. (MPA-11)	111	Yoon, J. (YPA-07)	219
Yang, Q. (MPA-14)	111	Yoon, S. (NOB-14)	117
Yang, Q. (NOB-01)	115	Yoshida, H.K. (BOA-08)	21
Yang, Q. (PPB-14)	134	Yoshida, R. (GOA-03)	74
Yang, S. (CPA-03)	41	Yoshida, S. (VOB-05)	181
Yang, S. (MOB-11)	109	Yoshida, S. (VOB-14)	183
Yang, S. (SOB-07)	152	Yoshida, S. (VPB-03)	186
Yang, T. (LPA-03)	103	Yoshida, T. (EOB-11)	65
Yang, T. (MOA-13)	107	Yoshida, T. (EPA-11)	67
Yang, T. (MOA-17)	107	Yoshida, T. (JPB-04)	95
Yang, W. (CPB-04)	44	Yoshida, T. (POB-07)	129
Yang, W. (HPA-07)	82	Yoshida, T. (YPA-03)	218
Yang, W. (MPB-06)	112	Yoshida, T. (YPA-05)	218
Yang, W. (WPA-04)	197	Yoshida, Y. (GOA-03)	74
Yang, X. (MPB-04)	112	Yoshidome, K. (VOA-02)	179
Yang, X. (PPC-04)	135	Yoshihara, Y. (QOB-13)	141
Yang, Y. (BOC-01)	24	Yoshihara, Y. (QPB-01)	144
Yang, Y. (CPB-04)	44	Yoshikawa, W. (TOB-07)	166
Yang, Y. (QOB-12)	141	Yoshikiyo, M. (POA-15)	128

*Best student presentation award finalist

Zhang, R. (XOA-03)	202	Zhao, J. (LOA-11)	102
Zhang, S. (BOC-10)	25	Zhao, J. (XOB-06)	204
Zhang, S. (COC-09)	36	Zhao, L. (CPA-02)	41
Zhang, S. (IPB-02)	89	Zhao, M. (APC-07)	19
Zhang, S. (JPA-03)	92	Zhao, Q. (QOA-04)	138
Zhang, S. (JPA-04)	93	Zhao, R. (LPA-18)	105
Zhang, S. (JPA-08)	93	Zhao, R. (WOB-06)	191
Zhang, S. (JPA-12)	93	Zhao, W. (AOA-07)	10
Zhang, S. (MOB-03)	108	Zhao, W. (AOC-11)	14
Zhang, S. (NOA-02)	113	Zhao, W. (APA-11)	16
Zhang, S. (TPB-03)	172	Zhao, W. (APC-02)	19
Zhang, T. (CPB-04)	44	Zhao, W. (BOB-07)	23
Zhang, T. (DPB-03)	56	Zhao, W. (BOD-02)	26
Zhang, T. (DPC-04)	59	Zhao, W. (BPA-03)	28
Zhang, W. (BOD-02)	26	Zhao, W. (BPA-06)	28
Zhang, W. (COC-09)	36	Zhao, W. (BPA-08)	29
Zhang, W. (FOA-01)	69	Zhao, W. (COA-12)	32
Zhang, W. (JOA-06)	91	Zhao, W. (COB-11)	34
Zhang, W. (LOA-02)	101	Zhao, W. (CPA-07)	42
Zhang, W. (LPA-06)	103	Zhao, W. (DOB-03)	48
Zhang, W. (SOA-04)	150	Zhao, W. (DOE-05)	53
Zhang, X. (AOA-03)	9	Zhao, W. (LPA-16)	104
Zhang, X. (AOC-11)	14	Zhao, W. (MOB-09)	109
Zhang, X. (BOA-05)	21	Zhao, W. (NOA-06)	114
Zhang, X. (BOC-02)	24	Zhao, W. (OOB-05)	121
Zhang, X. (COB-11)	34	Zhao, W. (OOB-07)	122
Zhang, X. (COC-09)	36	Zhao, W. (OPB-02)	125
Zhang, X. (COD-03)	37	Zhao, W. (POA-01)	126
Zhang, X. (CPA-02)	41	Zhao, W. (SOA-01)	149
Zhang, X. (CPA-07)	42	Zhao, W. (XPB-07)	210
Zhang, X. (EPA-02)	66	Zhao, W.S. (OPB-04)	125
Zhang, X. (FPA-07)	73	Zhao, X. (APB-04)	17
Zhang, X. (HPA-06)	82	Zhao, X. (APB-05)	17
Zhang, X. (MPA-10)	111	Zhao, X. (DPC-04)	59
Zhang, X. (MPA-11)	111	Zhao, X. (FOA-05)	70
Zhang, X. (MPA-14)	111	Zhao, X. (IPB-07)	90
Zhang, X. (PPB-14)	134	Zhao, X. (JPA-16)	94
Zhang, X. (PPD-04)	137	Zhao, X. (LOA-03)	101
Zhang, X. (WOC-10)	193	Zhao, X. (LPA-05)	103
Zhang, X.S. (COE-01)	39	Zhao, X. (POA-02)	126
Zhang, Y. (JPA-01)	92	Zhao, X. (VPA-03)	183
Zhang, Y. (NPA-15)	119	Zhao, X. (XOB-06)	204
Zhang, Y. (OOA-05)	120	Zhao, Y. (KOA-02)	97
Zhang, Y. (OPB-04)	125	Zhao, Y. (MPB-04)	112
Zhang, Y. (SA-03)	2	Zhao, Z. (AOB-07)	12
Zhang, Y. (TPB-03)	172	Zhao, Z. (APC-13)	20
Zhang, Y. (WOD-14)	196	Zhao, Z. (JPB-09)	95
Zhang, Y. (XPC-03)	211	Zhao, Z. (LPA-10)	104
Zhang, Z. (COA-12)	32	Zhen, S. (QPA-07)	143
Zhang, Z. (FOA-08)	70	Zheng, C. (TPB-07)	172
Zhang, Z. (GPA-16)	77	Zheng, F. (BOB-13)	24
Zhang, Z. (IOA-11)	85	Zheng, F. (CPB-07)	45
Zhang, Z. (IPB-01)	89	Zheng, L. (WOC-01)	192
Zhang, Z. (JOA-02)	91	Zheng, M. (SE-06)	6
Zhang, Z. (JOA-14)	92	Zheng, P. (GPB-11)	79
Zhang, Z. (KPA-20)	100	Zheng, P. (HOA-05)	80
Zhang, Z. (MOA-12)	107	Zheng, P. (HPA-20)	84
Zhang, Z. (MOA-16)	107	Zheng, P. (IPA-03)	87
Zhang, Z. (TPB-03)	172	Zheng, P. (IPB-09)	90
Zhang, Z. (XOA-03)	202	Zheng, P. (IPB-12)	90
Zhang, Z. (ZPA-06)	222	Zheng, X. (QOA-04)	138
Zhao, D. (AOB-07)	12	Zheng, X. (QPA-07)	143
Zhao, D. (APC-13)	20	Zhong, X. (OOB-16)	123
Zhao, F. (GPA-07)	76	Zhong, X. (OPB-10)	125
Zhao, F. (GPA-08)	76	Zhong, X. (UPA-02)	177
Zhao, F. (POB-09)	129	Zhong, X. (YOB-03)	217
Zhao, H. (HPA-14)	83	Zhou, B. (WPB-13)	199
Zhao, H. (IOB-03)	86	Zhou, C. (OOB-01)	121
Zhao, H. (LPA-11)	104	Zhou, H. (LPA-17)	105
Zhao, H. (MOB-09)	109	Zhou, J. (APB-12)	18
Zhao, H. (POB-09)	129	Zhou, K. (JPA-15)	94
Zhao, H. (SOC-01)	152	Zhou, M. (NOB-13)	117
Zhao, H. (WPB-05)	198	Zhou, Q. (GPA-13)	76
Zhao, J. (APB-04)	17	Zhou, S. (BOC-01)	24
Zhao, J. (APB-05)	17	Zhou, T. (WOB-09)	191
Zhao, J. (APC-13)	20	Zhou, W. (DOA-05)	46
Zhao, J. (IOB-04)	86	Zhou, W. (DOB-05)	48

*Best student presentation award finalist

Zhou, W. (DOC-04)	50	Zhu, X. (JPA-10)	93
Zhou, X. (LPA-04)	103	Zhu, X. (JPB-11)	95
Zhou, X. (LPA-07)	103	Zhu, X. (JPB-13)	96
Zhou, Y. (COB-02)	33	Zhu, X. (JPB-15)	96
Zhou, Y. (CPA-02)	41	Zhu, X. (LPA-04)	103
Zhou, Y. (CPB-07)	45	Zhu, X. (LPA-07)	103
Zhu, D. (BPA-06)	28	Zhu, Y. (RPA-01)	148
Zhu, D. (BPA-08)	29	Zhu, Z. (APA-01)	14
Zhu, D. (NOA-06)	114	Zhu, Z. (BOC-02)	24
Zhu, D. (OOB-07)	122	Zhu, Z. (CPB-11)	45
Zhu, D. (OPB-04)	125	Zhu, Z. (DPC-04)	59
Zhu, F. (XOA-03)	202	Zhu, Z. (LOA-02)	101
Zhu, G. (MOB-11)	109	Zhu, Z. (OPB-11)	126
Zhu, H. (JPA-01)	92	Zhu, Z. (WOB-06)	191
Zhu, J. (AOB-02)	11	Zhu, Z. (YOB-04)	217
Zhu, J. (FPA-04)	72	Zhuang, W. (RPA-06)	149
Zhu, J. (FPA-08)	73	Zhuang, Y. (COC-01)	35
Zhu, J. (IPB-02)	89	Zhukov, A. (QOA-10)	139
Zhu, J. (JOA-08)	91	Zhukov, A. (VOA-05)	180
Zhu, J. (LOA-08)	102	Zhukov, A. (VPA-05)	184
Zhu, J. (LPA-20)	105	Zhukov, A. (VPA-08)	184
Zhu, J. (OOA-01)	119	Zhukov, A. (VPA-12)	185
Zhu, J. (OOA-03)	120	Zhukova, V. (QOA-10)	139
Zhu, J. (OOB-04)	121	Zhukova, V. (VOA-05)	180
Zhu, J. (SOF-05)	160	Zhukova, V. (VPA-05)	184
Zhu, K. (WPA-03)	196	Zhukova, V. (VPA-08)	184
Zhu, L. (PPB-14)	134	Zhukova, V. (VPA-12)	185
Zhu, M. (BOA-06)	21	Zink, B. (NOB-12)	117
Zhu, M. (CPB-07)	45	Zlamal, J. (SOD-02)	155
Zhu, M. (WOA-13)	189	Zografos, O. (NOA-05)	114
Zhu, Q. (KPA-20)	100	Zou, J. (GOA-02)	74
Zhu, Q. (MOA-12)	107	Zou, J. (GPA-01)	75
Zhu, Q. (MOA-16)	107	Zou, J. (GPA-11)	76
Zhu, S. (FPA-11)	73	Zou, J. (GPB-06)	78
Zhu, S. (IOA-05)	84	Zou, J. (GPB-12)	79
Zhu, S. (JPB-02)	94	Zou, M. (MPB-10)	113
Zhu, W. (FOA-10)	71	Zou, M. (TPC-01)	173
Zhu, X. (HPA-08)	82	Zou, X. (NPA-09)	118
Zhu, X. (HPA-10)	82	Zou, Y. (EPA-02)	66
Zhu, X. (IOB-07)	86	Zuidema, G. (FOA-11)	71
Zhu, X. (IPA-04)	87	Zysler, R.D. (EOA-05)	61

*Best student presentation award finalist