2024 INTERMAG Rio

IEEE International Magnetics Conference

May 5 - 10, 2024 Rio de Janeiro, Brazil

Conference Booklet

SCOPE OF THE CONFERENCE 2
CITY INFORMATION 2
TIME ZONE 4
CONFERENCE LOCATION 4
WINDSOR OCEÂNICO ROOM MAPS 4
REGISTRATION 5
SCHEDULE-AT-A-GLANCE 6
SESSION CHAIRS 11
PUBLICATIONS 18
DAILY EVENTS 19
AWARDS 28
SPONSORS & EXHIBITORS 32
SUPPORT 32
PUBLICATION INTERMAG 2024 34
INTERMAG 2024 PROCOM ROSTER 36
JOIN THE MAILING LIST 45
POLICIES 45
PROGRAM 46

SCOPE OF THE CONFERENCE

The organizing committee welcome you to the IEEE International Magnetics Conference, INTERMAG 2024, which will be held in Rio de Janeiro, Brazil, on May 5-10, 2024. The conference will be in-person, with on-demand access to uploaded content provided afterwards.

The INTERMAG Conference is the premier annual conference on fundamental and applied magnetism sponsored by the IEEE Magnetics Society. Members of the international scientific and engineering communities interested in recent developments in magnetism and associated technologies are invited to attend and contribute to the conference.

The conference will cover a wide range of topics that include spintronics, magnetization dynamics, biomagnetics, electrical machines and power transformers, memory and logics, data storage, sensors, hard and soft magnetic materials, and interdisciplinary and emerging topics.

In 2024, the conference will take place for the first time in South America.

The conference program will include oral and poster presentations, invited talks, symposia, tutorials, and several special sessions.

CITY INFORMATION

RIO DE JANEIRO

Founded in 1565 by the Portuguese, Rio de Janeiro has grown to become a globally renowned city. It is celebrated for its breathtaking natural beauty, dynamic Carnival, eclectic music genres like samba and bossa nova, and pictures balneary beaches such as Barra da Tijuca, Copacabana, Ipanema, and Leblon. Its historic journey from being a port city for the trade of gold and precious stones to its evolution as a vibrant, multicultural metropolis makes it an irresistible destination in the Southern Hemisphere.

During its tenure as the capital of Brazil from 1763 to 1960, Rio de Janeiro functioned as the nation's political and economic epicenter. The city reflected the grandeur of Portuguese cities while nurturing a distinct Brazilian identity. This rich legacy manifest

itself in its architectural diversity. From the neoclassical beauty of the National Museum of Fine Arts and the colonial charm of the São Bento Monastery to the modernist lines of the Rio de Janeiro Cathedral and the futuristic design of the Museum of Tomorrow, Rio's cityscape stands as a testament to its enduring historical phases of monarchic rule, republic, and rapid urbanization.

Rio's contributions to literature, cinema, and music are substantial. The cultural resistance displayed through its thriving street art scene and cultural festivals like the Carnival underscores the city's resilience and multifaceted identity. Renowned authors like Machado de Assis and Clarice Lispector shaped Brazilian literature. In cinema, directors like Fernando Meirelles and Walter Salles have earned international acclaim, with movies like "City of God" and "Central Station" receiving Oscar nominations. Rio hosts prestigious events such as the Rio International Film Festival and the Rio Music Carnival, attracting talent and audiences from across the globe. The city is also the birthplace of legendary musicians and composers like Tom Jobim and Vinicius de Moraes, who penned the internationally acclaimed song "The Girl from Ipanema," emblematic of the iconic Bossa Nova genre.

The city's scientific pursuits are equally commendable. Rio hosts over 20 renowned scientific and academic institutions, including federal research labs such as the Brazilian Center for Research in Physics (CBPF) and the Oswaldo Cruz Foundation. Adding to the city's scientific prowess is the Petrobras Research Center (CENPES), one of the world's largest oil and gas research centers. This combination, along with many federal and state universities, including the largest federal university in Brazil, the Federal University of Rio de Janeiro (UFRJ), emphasizes Rio's dedication to scientific research and technological advancement.

In sports, Rio's history and enthusiasm are unparalleled. The city is home to legendary football clubs like Flamengo, Fluminense, Botafogo, and Vasco da Gama, which have nurtured many players who have graced the Brazil national football team and have played a significant role in Brazil's world football reputation. Rio's passion for sports is evident from hosting the 2016 Summer Olympics and Paralympics, marking it as the first South American and Portuguese-speaking city to host these events, to showcasing legendary football matches at the Maracanã Stadium. With the city preparing to host the G20 summit in 2024, it continues to cement its global position. Rio de Janeiro is a dynamic city of scientific progress, vibrant culture, and impressive historical heritage.

TIME ZONE

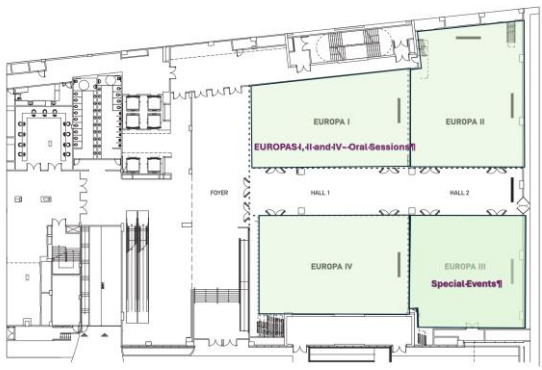
BRT (Brasília Standard Time)
UTC/GMT -3hours
No daylight-saving time in 2024
https://www.timeanddate.com/worldclock/brazil/rio-de-janeiro

CONFERENCE LOCATION

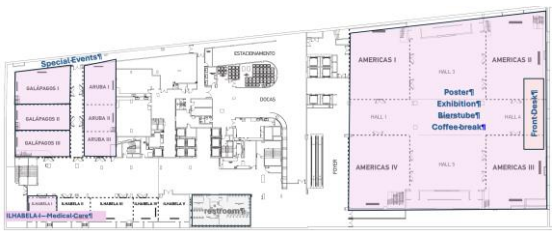
Windsor Conference, Exhibition Center and Hotels (Complex for Conferences located at the Barra da Tijuca neighborhood of the Rio de Janeiro city)
https://windsorexpocenter.com.br/en/

WINDSOR OCEÂNICO ROOM MAPS

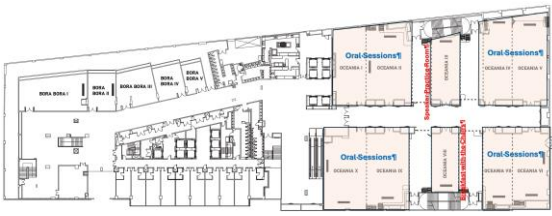
GROUND FLOOOR – WINDSOR OCEÂNICO



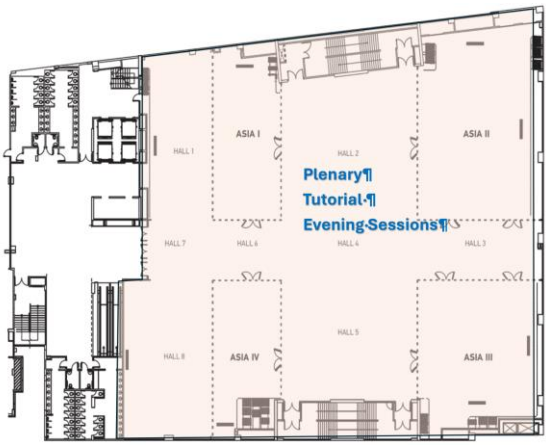
2nd LOWER LEVEL - WINDSOR OCEÂNICO



2nd FLOOR – WINDSOR OCEÂNICO



3rd FLOOR – WINDSOR OCEÂNICO



REGISTRATION

The Conference Registration Desk will be located on the 2nd lower level of the Windsor Conference, Exhibition Center. Name badges must be always worn during Conference sessions and events.

REGISTRATION HOURS:

Sunday, May 5	1:00 PM – 6:00 PM
Monday, May 6	8:00AM - 6:00PM
Tuesday, May 7	8:00AM - 6:00PM
Wednesday, May 8	8:00AM - 6:00PM
Thursday, May 9	8:00AM - 6:00PM
Friday, May 10	8:00AM - 12:30PM

SCHEDULE-AT-A-GLANCE

Morning coffee service from 10:00-10:30 AM / Afternoon coffee service from 3:30-4:00 PM on Monday only				
Start Time	**End Time**	**ID**	**Title**	**Location**
Monday May 6, 2024				
9:00 AM	11:45 AM		*Industrial Day (Pre-registration required) - STT-MRAM*	Europa I
1:30 PM	4:00 PM		*Industrial Day (Pre-registration required) - SOT-MRAM*	
4:00 PM	6:30 PM	TU	Tutorial: Spins in the Quantum World	Asia
7:30 PM	9:00 PM		Welcome Reception	Europa IV
Tuesday May 7, 2024				
8:30 AM	11:30 AM	AA	New Directions and Challenges in Neuromorphic Spintronics	Oceania IV & V
		AB	Interdisciplinary Topics: Chirality, Micromagnetic and Nanomagnetic Structures	Oceania VI & VII
		AC	Spin Torque and Voltage-Controlled Magnetic Anisotropy	Oceania IX & X
		AD	MRAM Applications and Magnetic Recording	Oceania I & II
		AE	Fundamental Properties, Cooperative Phenomena and Computational Magnetism	Europa I
		AF	Magneto-Optic and Magneto-Elastic Materials and Devices	Europa II
		AG	Skyrmions and Magnetic Heterostructures	Europa IV
9:00 AM	12:00 PM	AP	Magnetization Dynamics and Micromagnetics I	Exhibit Hall
		AQ	Thin Films, Multi-layered Films and Superlattices	
		AR	Transformers and Wireless Power Transfer, Magnetic Bearings and Levitation	
		AS	Interdisciplinary Topics in Magnetics I	
11:30 AM	12:00 PM		Magnetic Sensor Challenge	Aruba I, II & III

12:00 PM	2:00 PM		Communications Workshop *(Pre-registration required)*	Europa III
2:00 PM	5:00 PM	BA	Magnetics for Tomorrow's Medical Technologies	Oceania IV & V
		BB	Magnonics I: Fundamental Properties	Oceania VI & VII
		BC	Patterned Films, Nanocomposites, Self-assembly	Oceania IX & X
		BD	Ultrafast Dynamics and All-Optical Switching	Oceania I & II
		BE	Numerical, Semi-analytical and Analytical Analysis Methods I	Europa I
		BF	Magnetoelectric Materials and Phenomena	Europa II
		BG	Skyrmions and Spin-Orbit Torque Devices	Europa IV
2:30 PM	5:30 PM	BP	Magnetic Recording, MRAM and Related Devices	Exhibit Hall
		BQ	Spintronics with Antiferromagnets	
		BR	Nanoparticles and Nanowires	
		BS	Permanent Magnet Machines I	
5:00 PM	6:30 PM		Bierstube	Exhibit hall
5:30 PM	7:00 PM		Women in Magnetism Networking Event	Europa III
7:00 PM	9:00 PM		100 Years of the Concept of Spin (Spin100)	Asia
Wednesday May 8, 2024				
8:30 AM	11:30 AM	CA	Gradient Dzyaloshinskii-Moriya Interaction	Oceania IV & V
		CB	Magnonics II: Electrical and Other Coupling Effects	Oceania VI & VII
		CC	Neuromorphic and Unconventional Computing	Oceania IX & X
		CD	Novel Spintronics	Oceania I & II
		CE	Electrical Machines and Power System Components	Europa I
		CF	Magnetic Textures, Statics, and Dynamics	Europa II
		CG	Magnetoresistance and Spin Current Generation	Europa IV
9:00 AM	12:00 PM	CP	2D Spintronics and Topological Materials	Exhibit Hall
		CQ	Magnetoresistance and Related Phenomena I	

		CR	Magnonics and Related Phenomena	
		CS	Soft Magnetic Materials: Amorphous, Crystalline and Nanocrystalline	
12:00 PM	2:00 PM		Meet the Experts *(Pre-registration required)*	Europa III
2:00 PM	4:00 PM		Panel: Magnetics for Tomorrow's Medical Technologies	Oceania IV & V
2:00 PM	4:00 PM		Hackathon: Machine Learning AI for Magnetism - Tutorial and Hands-on Experience	Oceania VI & VII
2:00 PM	4:00 PM		Panel on Large Open Facilities in Latin America: opportunities for Magnetism	Oceania I e II
4:00 PM	5:00 PM		Awards Ceremony	Asia
5:00 PM	6:00 PM		Plenary Talk #1	
6:00 PM	7:00 PM		Plenary Talk #2	
7:30 PM	10:00 PM		Conference Reception	El Pardo I, II & Segovia
Thrusday May 9, 2024				
		DA	Magnetic Tunnel Junction and Quantum Devices for Unconventional Computing	Oceania IV & V
8:30 AM	11:30 AM	DB	Magnonics III: Band Properties and Devices	Oceania VI & VII
		DC	Path Towards More Sustainable Tomorrow – Magnetic Solutions	Oceania IX & X
		DD	Biomagnetics I	Oceania I & II
		DE	Hard Magnetic Materials I	Europa I
		DF	Soft Magnetic Alloys: Materials and Methods	Europa II
		DG	2D Spintronics and Magnetism	Europa IV
		DP	High-speed, Wound-field, Induction and Reluctance Machines I	Exhibit Hall
9:00 AM	12:00 PM	DQ	Skyrmions and Related Phenomena	
		DR	Multi-Functional Magnetic Materials and Applications I	
		DS	Sensors and High-frequency Devices I	
12:00 PM	2:00 PM		Lunch with Speakers *(Pre-registration required)*	Europa III

12:00 PM	1:00 PM		Magnetic Energy Conversion Meeting	Oceania I & II
2:00 PM	4:00 PM		Panel: Magnetic Technologies for Smooth Transition Towards More Sustainable Tomorrow	Galápagos I, II & III
2:00 PM	5:00 PM	EA	Orbitronics: From Theory to Experiments	Oceania IV & V
		EB	Magnetic Field Sensors	Oceania VI & VII
		EC	Interdisciplinary Topics: Sensors, Antennas, and Nanofabrication	Oceania IX & X
		ED	Biomagnetics II	Oceania I & II
		EE	Hard Magnetic Materials II	Europa I
		EF	Soft Magnetic Alloys: Synthesis, Characterization and Modeling	Europa II
		EG	Magnetization Dynamics, Damping, and Micromagnetic Modeling	Europa IV
2:30 PM	5:30 PM	EP	Biomagnetics III	Exhibit Hall
		EQ	Numerical, Semi-analytical and Analytical Analysis Methods II	
		ER	Spin-Orbit Torques and Related Phenomena	
		ES	Hard Magnetic Materials III	
5:00 PM	6:30 PM		Bierstube	Exhibit Hall
5:30 PM	7:00 PM		Students in Magnetism Networking Event	Europa III
6:30 PM	8:00 PM		Latin America magnetic Community Meeting	Europa IV
7:00 PM	7:30 PM		Magnetic Sensor Challenge Final Competition	Aruba I, II & III
Friday May 9, 2024				
8:30 AM	11:30 AM	FA	Magnonic Materials and Devices	Oceania IV & V
		FB	Novel Characterization Approaches	Oceania VI & VII
		FC	Magnetism for Niche Applications: Sensors, Robots, Drones and Other Devices	Oceania IX & X
		FD	Antiferromagnetic/Ferrimagnetic Spintronics and Domain Wall Devices	Oceania I & II
		FE	Linear Machines and Field Modulating Machines	Europa I

		FF	Topological Insulators, Weyl and Dirac Semimetals	Europa II
		FG	Magneto-Caloric Materials and Devices	Europa IV
12:00 PM	2:00 PM		Young Professionals Lightning Talks	Galápagos I, II & III
12:00 PM	2:00 PM		Meet the Editors (Pre-registration required)	Europa III
2:00 PM	5:00 PM	GA	Magnetic Sensor Standardization	Oceania IV & V
		GB	Multilayers, Surface and Interface Phenomena	Oceania VI & VII
		GC	High Frequency, Microwave and Millimeter Wave Materials and Devices	Oceania IX & X
		GD	Antiferromagnetic Spintronics with Skyrmions and Textures	Oceania I & II
		GE	Permanent Magnet, High-speed, Wound-field, Induction and Reluctance Machines	Europa I
		GF	Amorphous and Nanocrystalline Soft Magnetic Materials	Europa II
		GG	Thin Films and Surface Effects	Europa IV
Poster Virtual Only Sessions Available on Virtual Platform May 17, 2024				
		VP1	Field Modulated Machines	Digital Conference Resource Center
		VP2	Hard Magnetic Materials IV	
		VP3	High-speed, Wound-field, Induction and Reluctance Machines II	
		VP4	Interdisciplinary Topics in Magnetics II	
		VP5	Linear Machines and Magnetic Gearing	
		VP6	Magnetization Dynamics and Micromagnetics II	
		VP7	Magnetoresistance and Related Phenomena II	
		VP8	Motor Drives, Bearing, Testing and Control	
		VP9	Multi-Functional Magnetic Materials and Applications II	
		VP10	Numerical, Semi-analytical and Analytical Analysis Methods III	
		VP11	Permanent Magnet Machines II	

VP12	Permanent Magnet Machines III	
VP13	Sensors and High-frequency Devices II	
VP14	Soft Magnetic Materials	
VP15	Transformers and Wireless Power Transfer	

SESSION CHAIRS

Symposium	**AA**	New Directions and Challenges in Neuromorphic Spintronics
		Chair: Pedro Landeros - Universidad Técnica Federico Santa María
Oral	**AB**	Interdisciplinary Topics: Chirality, Micromagnetic and Nanomagnetic Structures
		Chair: Silvia Tacchi - Consiglio Nazionale delle Ricerche
Oral	**AC**	Spin Torque and Voltage-Controlled Magnetic Anisotropy
		Chair: Hari Srikanth - University of South Florida
Oral	**AD**	MRAM Applications and Magnetic Recording
		Chair: Jonathan Sun - IBM Research
Oral	**AE**	Fundamental Properties, Cooperative Phenomena and Computational Magnetism
		Chair: Artur Carbonari - Instituto de Pesquisas Energeticas e Nucleares
Oral	**AF**	Magneto-Optic and Magneto-Elastic Materials and Devices
		Co-Chair: Ekkes Brück - TU Delft
		Co-Chair: Fanny Béron - Universidad Estadual de Campinas
Oral	**AG**	Skyrmions and Magnetic Heterostructures
		Chair: Johanna Fischer - CEA-SPINTEC
Poster	**AP**	Magnetization Dynamics and Micromagnetics I
		Co-Chair: Luis Aviles Felix - Centro Atomico Bariloche
		Co-Chair: Emily Darwin - EMPA
Poster	**AQ**	Thin Films, Multi-layered Films and Superlattices

		Chair: Xiufeng Han - Institute of Physics, Chinese Academy of Sciences
Poster	**AR**	Transformers and Wireless Power Transfer, Magnetic Bearings and Levitation
		Chair: Hamed Hamzehbahmani - Durham University
Poster	**AS**	Interdisciplinary Topics in Magnetics I
		Chair: Alisson Krohling - Nuclear Technology Development Center
Symposium	**BA**	Magnetics for Tomorrow's Medical Technologies
		Chair: Ravi Hadimani - Virginia Commonwealth University
Oral	**BB**	Magnonics I: Fundamental Properties
		Chair: David Cortés-Ortuño - Universidad Técnica Federico Santa María
Oral	**BC**	Patterned Films, Nanocomposites, Self-assembly
		Chair: Julian Geshev - Institute of Physics, UFRGS
Oral	**BD**	Ultrafast Dynamics and All-Optical Switching
		Chair: Alex Jenkins - International Iberian Nanotechnology Laboratory
Oral	**BE**	Numerical, Semi-analytical and Analytical Analysis Methods I
		Chair: Yacine Amara - Université Le Havre Normandie
Oral	**BF**	Magnetoelectric Materials and Phenomena
		Chair: Thiago Mori - Brazilian Center for Research in Energy and Materials
Oral	**BG**	Skyrmions and Spin-Orbit Torque Devices
		Chair: Michal Slezak - AGH University of Science and Technology
Poster	**BP**	Magnetic Recording, MRAM and Related Devices
		Co-Chair: SN Piramanayagam - Nanyang Technological University
		Co-Chair: Simon Greaves - Tohoku University
Poster	**BQ**	Spintronics with Antiferromagnets
		Chair: Qi Wang - Huazhong University of Science & Technology
Poster	**BR**	Nanoparticles and Nanowires

		Chair: Marcio Correa - Federal University of Rio Grande do Norte
Poster	**BS**	Permanent Magnet Machines I
		Co-Chair: Narayan Kar - University of Windsor
		Co-Chair: Elena Lomonova - Technische Universiteit Eindhoven
Symposium	**CA**	Gradient Dzyaloshinskii-Moriya Interaction
		Chair: Witold Skowronski - AGH University of Krakow
Oral	**CB**	Magnonics II: Electrical and Other Coupling Effects
		Chair: Santa Pile - Johannes Kepler University Linz
Oral	**CC**	Neuromorphic and Unconventional Computing
		Co-Chair: Sonal Shreya - Aarhus University
		Co-Chair: Sai Li - Beihang University
Oral	**CD**	Novel Spintronics
		Chair: Clécio de Souza Silva - Federal University of Pernambuco
Oral	**CE**	Electrical Machines and Power System Components
		Chair: Yacine Amara - Université Le Havre Normandie
Oral	**CF**	Magnetic Textures, Statics, and Dynamics
		Co-Chair: Christian Tzschaschel - Max Born Institute
		Co-Chair: Adekunle Adeyeye - Durham University
Oral	**CG**	Magnetoresistance and Spin Current Generation
		Chair: Gyoung-Min Choi - Sungkyunkwan University
Poster	**CP**	2D Spintronics and Topological Materials
		Chair: Connie Li - Naval Research Lab
Poster	**CQ**	Magnetoresistance and Related Phenomena I
		Chair: Jakub Zelezny - FZU - Institute of Physics, Czech Academy of Sciences
Poster	**CR**	Magnonics and Related Phenomena
		Chair: Philippe Talatchian - CEA-SPINTEC
Poster	**CS**	Soft Magnetic Materials: Amorphous, Crystalline and Nanocrystalline

		Co-Chair: Paola Tiberto - INRIM
		Co-Chair: Arkady Zhukov - Basque Foundation for Science
Symposium	**DA**	Magnetic Tunnel Junction and Quantum Devices for Unconventional Computing
		Co-Chair: Nathan Satchell - Texas State University
		Co-Chair: Guohan Hu - IBM
Oral	**DB**	Magnonics III: Band Properties and Devices
		Chair: Pawel Gruszecki - Uniwersytet im Adama Mickiewicza w Poznaniu
Symposium	**DC**	Path Towards More Sustainable Tomorrow – Magnetic Solutions
		Chair: Yacine Amara - Université Le Havre Normandie
Oral	**DD**	Biomagnetics I
		Co-Chair: Ahmed El-Gendy - The University of Texas at El Paso
		Co-Chair: Bethanie Stadler - University of Minnesota
Oral	**DE**	Hard Magnetic Materials I
		Chair: Pelin Tozman - Technical Unviesity of Darmstadt
Oral	**DF**	Soft Magnetic Alloys: Materials and Methods
		Chair: Del Atkinson - Durham University
Oral	**DG**	2D Spintronics and Magnetism
		Chair: Xufeng Zhang - Northeastern University
Poster	**DP**	High-speed, Wound-field, Induction and Reluctance Machines I
		Chair: Marco Trapanese - Palermo University
Poster	**DQ**	Skyrmions and Related Phenomena
		Chair: Svitlana Kondovych - Leibniz Institute for Solid State and Materials Research (IFW) Dresden
Poster	**DR**	Multi-Functional Magnetic Materials and Applications I
		Co-Chair: Joao Belo - IFIMUP
		Co-Chair: Lei Bi - University of Electronic Science and Technology of China
Poster	**DS**	Sensors and High-frequency Devices I
		Chair: Shin Yabukami - Tohoku University
Symposium	**EA**	Orbitronics: From Theory to Experiments

		Chair: Antonio Azevedo - Universidade Federal de Pernambuco (Physics)
Oral	**EB**	Magnetic Field Sensors
		Chair: Paul Stevenson - Northeastern University
Oral	**EC**	Interdisciplinary Topics: Sensors, Antennas, and Nanofabrication
		Chair: Luiz Sampaio - Brazilian Center for Research in Physics
Oral	**ED**	Biomagnetics II
		Co-Chair: Kai Wu - Texas Tech University
		Co-Chair: Andris Bakuzis - Federal University of Goiás
Oral	**EE**	Hard Magnetic Materials II
		Co-Chair: Paulo Wendhausen - Universidade Federal de Santa Catarina
		Co-Chair: Ping Liu - University of Texas at Arlington
Oral	**EF**	Soft Magnetic Alloys: Synthesis, Characterisation and Modeling
		Chair: Ivan Skorvanek - Institute of Experimental Physics, Slovak Academy of Sciences
Oral	**EG**	Magnetization Dynamics, Damping, and Micromagnetic Modeling
		Co-Chair: Jose Angel Fernandez-Roldan - HZDR
		Co-Chair: Vito Puliafito - Politecnico di Bari
Poster	**EP**	Biomagnetics III
		Co-Chair: Javier Alonso - University of Cantabria
		Co-Chair: Ravi Hadimani - Virginia Commonwealth University
		Co-Chair: Ana García-Prieto - University of the Basque Country UPV/EHU
Poster	**EQ**	Numerical, Semi-analytical and Analytical Analysis Methods II
		Chair: Johannes Paulides - Advanced Electromagnetics Group
Poster	**ER**	Spin-Orbit Torques and Related Phenomena
		Chair: Mathias Kläui - Universität Mainz
Poster	**ES**	Hard Magnetic Materials III
		Co-Chair: Matthew Kramer - Ames National Laboratory
		Co-Chair: Alex Aubert - Technische Universitat Darmstadt

Symposium	**FA**	Magnonic Materials and Devices
		Co-Chair: Santa Pile - Johannes Kepler University Linz
		Co-Chair: Jaroslaw Klos - Adam Mickiewicz University
Oral	**FB**	Novel Characterization Approaches
		Chair: Pedram Khalili - Northwestern University
Oral	**FC**	Magnetism for Niche Applications: Sensors, Robots, Drones and Other Devices
		Chair: Susana Cardoso de Freitas - INESC Microsistemas e Nanotecnologias
Oral	**FD**	Antiferromagnetic/Ferrimagnetic Spintronics and Domain Wall Devices
		Chair: Kim Kong Tham - Tanaka Kikinzoku Kogyo
Oral	**FE**	Linear Machines and Field Modulating Machines
		Co-Chair: Jonathan Bird - Portland State University
		Co-Chair: Chinweze Ubadigha - National Cheng Kung University
		Co-Chair: Kenji Nakamura - Tohoku University
Oral	**FF**	Topological Insulators, Weyl and Dirac Semimetals
		Co-Chair: Jiadong Zang - University of New Hampshire
		Co-Chair: Hao Zeng - University of Buffalo
Oral	**FG**	Magneto-Caloric Materials and Devices
		Co-Chair: Ekkes Brück - TU Delft
		Co-Chair: Fanny Béron - Universidad Estadual de Campinas
Symposium	**GA**	Magnetic Sensor Standardization
		Chair: Philip Keller - Metrolab Technology S.A.
Oral	**GB**	Multilayers, Surface and Interface Phenomena
		Chair: Kleber Pirota - University of Campinas
Oral	**GC**	High Frequency, Microwave and Millimeter Wave Materials and Devices
		Co-Chair: Andrei Slavin - Oakland University
		Co-Chair: Alexey Ustinov - St. Petersburg Electrotechnical University

Oral	**GD**	Antiferromagnetic Spintronics with Skyrmions and Textures
		Chair: Kun-Rok Jeon - Chung-Ang University (CAU)
Oral	**GE**	Permanent Magnet, High-speed, Wound-field, Induction and Reluctance Machines
		Co-Chair: Min-Fu Hsieh - National Cheng Kung University
		Co-Chair: Po-Wei Huang - National Cheng Kung University
Oral	**GF**	Amorphous and Nanocrystalline Soft Magnetic Materials
		Chair: Massimo Pasquale - INRIM
Oral	**GG**	Thin Films and Surface Effects
		Chair: Juliano Denardin - Universidad de Santiago
Poster Virtual Only	**VP1**	Field Modulated Machines
		Co-Chair: Mohamed Ibrahim - University of Ghent
		Co-Chair: Metin Aydin - Kocaeli University
Poster Virtual Only	**VP10**	Numerical, Semi-analytical and Analytical Analysis Methods III
		Co-Chair: Abdelmounaim Tounzi - Univ. Lille, Arts et Metiers Institute of Technology
		Co-Chair: Smail Mezani - Université de Lorraine
Poster Virtual Only	**VP11**	Permanent Magnet Machines II
		Chair: Konstantin Boynov - Eindhoven University of Technology
Poster Virtual Only	**VP12**	Permanent Magnet Machines III
		Co-Chair: Yukihiro Yoshida - Akita University
		Co-Chair: Sho Sakurai - Akita University
Poster Virtual Only	**VP13**	Sensors and High-frequency Devices II
		Chair: Yajie Chen - Rogers Corp.
Poster Virtual Only	**VP14**	Soft Magnetic Materials
		Chair: Samuel Dobák - P. J. Šafárik University
Poster Virtual Only	**VP15**	Transformers and Wireless Power Transfer
		Chair: Sandro Rubino - Politecnico di Torino
Poster Virtual Only	**VP2**	Hard Magnetic Materials IV
		Chair: Imants Dirba - TU Darmstadt
Poster Virtual Only	**VP3**	High-speed, Wound-field, Induction and Reluctance Machines II

		Chair: Shuangxia Niu - The Hong Kong Polytechnic University
Poster Virtual Only	**VP4**	Interdisciplinary Topics in Magnetics II
		Chair: Bruno Silva - Centro Brasileiro de Pesquisas Fisicas
Poster Virtual Only	**VP5**	Linear Machines and Magnetic Gearing
		Chair: Noureddine Takorabet - Université de Lorraine
Poster Virtual Only	**VP6**	Magnetization Dynamics and Micromagnetics II
		Chair: Myoung-Woo Yoo - University of Illinois Urbana-Champaign
Poster Virtual Only	**VP7**	Magnetoresistance and Related Phenomena II
		Chair: Jakub Zelezny - FZU - Institute of Physics, Czech Academy of Sciences
Poster Virtual Only	**VP8**	Motor Drives, Bearing, Testing and Control
		Chair: Zhu Ke - China Three Gorges University
Poster Virtual Only	**VP9**	Multi-Functional Magnetic Materials and Applications II
		Co-Chair: Alberto Mendonça - Universidade Estadual de Campinas
		Co-Chair: Jia-Yan Law - University of Seville

PUBLICATIONS

FULL PAPERS IN IEEE TRANSACTIONS ON MAGNETICS

Full papers will be published in IEEE Transactions on Magnetics. To be eligible for publication, all papers must be presented at the Conference by a registered author (or representative) who is knowledgeable about the work. If not, they will be recorded as a "No Show", and therefore the corresponding paper will not be suitable for publication. **All papers will be submitted to MAGCONF IEEE Author Portal at https://ieee.atyponrex.com/journal/magconf-ieee**. Note that this site is different from the digest submission site.

CONFERENCE SHORT PAPER

Authors may also choose to **publish their accepted digest ("conference short paper") in the Magnetics Society's Digital Library on IEEE Xplore**

(optional). To be eligible for publication, all papers must be presented at the Conference by a registered author (or representative) who is knowledgeable about the work. Each published digest will receive a unique digital object identifier (DOI). Publication of digests will still allow you to publish your accepted full paper in IEEE Transactions on Magnetics (or other journals) or, in some cases, the Magnetics Society's Digital Library as a "long paper". **To submit your digest ("conference short paper") for publication, follow the instructions at https://ieeeexpressconferencepublishing.ieee.org/confid/author-instructions-for-intermag-2024-shortpapers/**.

DAILY EVENTS

LUNCH
Lunch time scheduled from 12:00 PM - 2:00PM

COFFEE SERVICE
Morning coffee service from 10:00AM -10:30AM
Afternoon coffee service from 3:00PM - 3:30PM ***on Monday only***

BIERSTUBE
Tuesday, May 7 5:00PM - 6:30PM
Thursday, May 9 5:00PM - 6:30PM
Exhibition Hall – Americas I-IV

ORAL SESSIONS
There will be seven simultaneous oral session rooms daily.
Tuesday .....8:30 AM – 11:30 PM and 2:00 PM – 5:00 PM
Wednesday .....8:30 AM – 12:00 PM and 1:30 PM – 5:00 PM
Thursday ....8:30 AM – 12:00 PM and 1:30 PM – 5:00 PM
Friday 8:30 AM – 12:00 PM and 1:30 PM – 5:00 PM

POSTER SESSIONS
In-person poster sessions will be held in the Exhibit Hall (Americas I-IV) daily.
Tuesday .....9:00 AM – 12:00 PM and 2:30 PM – 5:30 PM
Wednesday .....9:00 AM – 12:00 PM and 2:30 PM – 5:30 PM
Thursday ....9:00 AM – 12:00 PM and 2:30 PM – 5:30 PM

Note: There will be virtual poster sessions available in the digital conference library starting May 17, 2024.

SESSION CHAIRS

On the day of their session, Oral and Poster Session Chairs should attend the Session Chair Breakfast at 7:00 AM, in Oceania VIII, 2nd Floor, Windsor Oceânico.

SPEAKER'S PRACTICE ROOM

Speakers have the possibility to test their computer connections and screen settings before the start of the session in the Speaker's Practice Room, located in room OCEANIA III, 2nd Floor – Windsor Oceânico.

Note: This room is available from Monday at 8:00 AM until Friday at 11:00 AM.

SPECIAL SESSIONS

Updated: March 20, 2024

Special Sessions and Events

Several Special Sessions and Events will be organized during INTERMAG 2024. Check below the ones that fit your interests and pay attention to those that demand pre-registration due the maximum number of attendees.

Plenary Talk 1

Wednesday (May 8) from 5 to 6 PM.

Room: ASIA

Title: Advances in orbitronics: giant torques from orbital textures at interfaces, light-induced orbital currents for TeraHz emission.

Albert Fert – CNRS, Université Paris-Saclay, France

Nobel Prize in Physics 2007 for Giant Magnetoresistance.

Note: *This Plenary Talk will be presented* ***remotely*** *by Prof. Albert Fert, following medical recommendations.*

Plenary Talk 2

Wednesday (May 8) from 6 to 7 PM.

Room: ASIA

Title: Spintronics: Fundamentals and some recent advances.

Sergio M. Rezende – Universidade Federal de Pernambuco, Brazil

Brazilian Minister of Science Technology and Innovation from 2005 to 2010

Special Session: 100 Years of the Concept of Spin (Spin100)

This will be a special session to celebrate the 100th Anniversary of "Spin" that will feature three distinguished plenary talks by:

Tuesday (May 7) from 7 to 9 PM

Room: ASIA

No pre-registration required

Alberto P. Guimarães – from Centro Brasileiro de Pesquisas Físicas (Brazil) will delve into the history of Spin.

Stuart Parkin – from the Max Planck Institute of Microstructure Physics (Germany) will provide insights into the latest advances in spintronics.

Gregory Fuchs – from Cornell University (USA) will explore the perspective of spin qubits. This unique session promises to offer valuable perspectives on the evolution of spin-related research and technology.

TUTORIAL: SPINS IN THE QUANTUM WORLD

Monday (May 6) from 4 to 6:30 PM

Room: ASIA

Spins in quantum information systems

Qiang Li – Stony Brook University

Quantum sensing using NV spins in diamond

Toeno van der Sar – Delft University of Technology

Spintronics for quantum technologies

Michael Flatte – University of Iowa

PANELS

PANEL: MAGNETICS FOR TOMORROW'S MEDICAL TECHNOLOGIES

Wednesday (May 8) from 2 to 4 PM

Room: OCEANIA IV & V

This Panel is Organized by The IEEE Magnetics Society Technical Committee

PANEL SPEAKERS

Cindi Dennis – NIST – Magnetic Nanoparticles for theranostic applications

Dominic Labanowski – Sonera Brain sensing

Masaki Sekino – Tokyo University Transcranial Magnetic Stimulation

Shelly Fried – Harvard University/Massachusetts General Hospital -Micromagnetic brain stimulation.

Usha Varshney – NSF – Funding in biomagnetics and international collaborations

PANEL: LARGE OPEN FACILITIES IN LATIN AMERICA – OPPORTUNITIES FOR MAGNETISM
Wednesday (May 8) from 2 to 4 PM
Room: OCEANIA I & II

PANEL TALKS
1. Neutron Science and Magnetism: Opportunities and Challenges posed by the Argentine Neutron Beam Laboratory.
Marina Tortarolo – Argentine Neutron Beam Laboratory LAHN/CNEA
2. Status of SIRIUS, the new Brazilian synchrotron source, and its potential in the investigation of magnetic materials
Julio Criginski Cezar – Brazilian Synchrotron Light Laboratory LNLS/ CNPEM

PANEL: MAGNETIC TECHNOLOGIES FOR SMOOTH TRANSITION TOWARDS MORE SUSTAINABLE TOMORROW
Thursday (May 9) from 2 to 4 PM
Room: OCEANIA I & II
Note:This Panel is Organized by The IEEE Magnetics Society Technical Committee

PANEL SPEAKERS
Parag Upadhyay, PhD, SM-IEEE
Noureddine Takorabet – Director of the research center GREEN: Group of Research in Electrical Engineering of Nancy
Kenji Nakamura – Graduate School of Engineering, Tohoku University
Johan Paulides – Senior Member, IEEE

SPECIAL EVENTS
Note: to register for activities and special sessions requiring pre-registration, go to your attendee area. Just click on the registration button in the registration page and login. Once logged in, click on the attendee tab and then in the ADD/EDIT Activities. Just choose the activities you wish to pre-register, according to your category.

SPECIAL SESSIONS AND EVENTS
Several Special Events were organized for INTERMAG 2024, pre-registration is mandatory due the maximum number of attendees.

COMMUNICATIONS WORKSHOP
Tuesday (May 7) from noon to 2 PM
Room: EUROPA III
Max. number of attendees: 100 students

Lunch box will be provided
Pre-registration required

The Communications Workshop, organized by the IEEE Magnetics Society Technical Committee, will consist of three tutorials geared toward helping graduate students and postdoctoral fellows improve their skills and techniques.

1 – **How to Write Exciting Papers**
Ron Goldfarb – National Institute of Standards and Technology (NIST), USA

2 – **Preparation of Professional Resumes**
Guohan Hu – IBM T. J. Watson Research Center, USA

3 – **Preparation of Oral Scientific Presentations**
Montserrat Rivas – The University of Oviedo, Spain

WOMEN IN MAGNETISM
Monstserrat Rivas
Tuesday (May 7) 5:30 – 7:00 PM
Room: EUROPA III
No pre-registration required

WOMEN IN MAGNETISM, WHAT'S NEXT?
Step into the future of magnetism at the Women Networking Event during Intermag 2024!
All women at the conference are warmly invited to join our dynamic gathering. With the motto guiding us, seize the chance to exchange job positions, resumes, volunteering, mentorship offers, and project announcements within the community of "magnetic women." Engage in meaningful discussions at topical tables covering leadership, academia, post-PhD opportunities, publications, work-life balance, and more. Let's collaboratively shape the future of women in magnetism—what shall we do next?
Organized by the Women in Magnetism committee of the IEEE Magnetics Society:
https://ieeemagnetics.org/membership/community/women-magnetism

SENSOR CHALLENGE
Luiz Augusto Sousa de Oliveira – Federal University of Rio de Janeiro, Brazil
Instruction meeting: Tuesday (May 7) at 11:30 a.m.

Final competition on Thursday (May 9) at 7:00 PM
Max. number of attendees: 30 students
Room: ARRUBA I-III
Pre-registration required

The challenge will be proposed to pre-register students. It will begin on Tuesday morning with a meeting, where instructions for the challenge will be given.
Teams will be drawn and receive an Arduino design kit to complete the proposed challenge.

MEET THE EXPERTS
Mingzhong Wu **-** Northeastern University - US
Wednesday (May 8) from noon to 2 PM
Room: EUROPA III
Max. number of attendees: 90 students
Lunch will be provided
Pre-registration required

This event will foster a meeting between students and an outstanding group of magnetism experts. A small group of students will have the opportunity to participate in an informal conversation over lunch and obtain expert advice on the stages of their research career planning.

Montserrat Rivas - The University of Oviedo, Spain
Yoichiro Tanaka - Tohoku University, Japan
Laura Steren, INN CNEA-CONICET, Argentina
Angela Burlamaqui Klautau - Federal University of Pará, Brazil
Adekunle Adeyeye - Durham University, United Kingdom
Masahiro Yamaguchi - Tohoku University, Japan
Guohan Hu - IBM T J Watson Research Center, USA
Kerem Camsari - UC Santa Barbara, USA
Jian-Ping - University of Minnesota, USA
Piramanayagam - Nanyang Technological University, Singapore.

HACKATHON: MACHINE LEARNING AI FOR MAGNETISM - TUTORIAL AND HANDS-ON EXPERIENCE
Wednesday (May 8) from 2 to 4 PM
Room: OCEANIA VI-VII
Max. number of attendees: 300 participants
Pre-registration required

Thomas Winkler, Kilian Leutner and Mathias Kläui - Institute of Physics, Johannes Gutenberg University Mainz, 55099 Mainz, Germany
Yuriy Mokrousov - Peter Grünberg Institut and Institute for Advanced Simulation (IAS-1),

Forschungszentrum Jülich and JARA, 52425 Jülich, Germany
Hans Fangohr - Max-Planck Institute for the Structure and Dynamics of Matter, Luruper Chaussee 149, 22761 Hamburg, Germany; University of Southampton, SO17 1BJ, Southampton, United Kingdom

Machine-learning-based techniques are becoming more relevant in modern research, as they enable fast and robust data evaluation or can predict the physical properties of investigated systems. We will cover these two aspects of artificial intelligence (AI) in the research field of spintronics.
This session organized by M. Kläui will consist of three parts: a talk on magnetic pattern recognition given by T. Winkler, a talk on AI-supported electronic structure predictions given by Y. Mokrousov, and hands-on activities led by K. Leutner and T. Winkler."
The first introductory talk will deal with the data evaluation of magnetic imaging techniques, such as Kerr microscopy, with convolutional neural networks [1,2]. In the second part, AI-supported methods are presented to predict intricate changes in the electronic structure of non-collinear magnetic materials [3]. Participants can follow instructions to run AI models on their own laptop devices in the subsequent hands-on session. We will provide exemplary magnetic microscopy measurement data and suitable pre-trained AI models for their evaluation. Further instructions and files can be downloaded prior to the session under https://download.klaeui-lab.de/intermag24/ .
[1] Isaac Labrie-Boulay, Thomas Brian Winkler et al., Phys. Rev. Applied 21, 014014 (2024)
[2] Winkler, T. B., Labrie-Boulay et al., Zenodo, doi: 10.5281/zenodo.7636110 (2023)
[3] Kipp, J., et al., https://arxiv.org/abs/2401.03044

LUNCH WITH SPEAKERS
Luiz Augusto Sousa de Oliveira – Federal University of Rio de Janeiro, Brazil
Thursday (May 9) from noon to 2 PM
Room: EUROPA III
Max. number of attendees: 90 students
Lunch will be provided
Pre-registration required
The event will consist of a meeting between small groups of students and distinguished speakers from the Conference.

CONFIRMED SPEAKERS:
Manuel Vazquez - National Spanish Council for Research, Spain;
Connie Li - Naval Research Lab., United States;
Johanna Fischer - SPINTEC, France;

Pedro Landeros - Universidad Técnica Federico Santa María, Chile;
Daniela P. Valdes - CNEA-CONICET, Universidad Nacional de Cuyo, Argentina;
Xin Zhang - Hefei Institutes of Physical Science, China;
Masaki Sekino - The University of Tokyo, Japan;
Anthony Tan - Imperial College London;
Kleber Roberto Pirota - UNICAMP, Brazil.
Alexandra Mougin - Université Paris-Saclay, France.

MAGNETIC ENERGY CONVERSION MEETING
Thursday (May 9) from noon to 1:00 PM
Room: OCEANIA I-II
No pre-registration required

STUDENTS IN MAGNETISM
May Inn Sim
Thursday (May 9) 5:30 - 7:00 PM
Room: EUROPA III
No pre-registration required.

Calling all graduate students!
Join us for a graduate student networking session with food, drinks, and freebies!
All graduate students are invited to mix and mingle at this networking session while enjoying some fun and games!
To ensure that you can secure your goodies, please reserve them as early as possible through the provided link.
* Giveaway items are subjected to availability, i.e. the earlier you inform us, the higher the chance we can make sure that yours is reserved!

www.studentsinmagnetism.org/intermag2024

LATIN AMERICAN MAGNETICS COMMUNITY MEETING
Thursday (May 9) 6:30 - 8:00 PM
Room: EUROPA IV
No pre-registration required.

YOUNG PROFESSIONALS MEETING (STUDENTS & JUNIOR RESEARCHERS)
Dmytro Bozhko

Friday (May 10) from noon to 2 PM
Room: EUROPA III
Max. number of attendees: 100
Lunch will be provided
Pre-registration required

The Lightning Talks, organized by the IEEE Magnetics Society Young Professionals, is setting a challenge – to present your research understandably to an audience outside of your field.
The event will consist of a set of short 3-minute talks presented by young professionals in magnetism (from Postdocs to Asst. Professors and industry) followed by audience feedback and a panel discussion.
Stay tuned for registration information! Everyone is welcome to attend the event. There is no additional cost to attend.

MEET THE EDITORS OF IEEE TRANSACTIONS ON MAGNETICS & IEEE MAGNETICS LETTERS
Tom Thompson
Friday (May 10) noon - 2 PM
Max. number of attendees: 100
Room: OCEANIA III
Lunch Box will be available
Pre-registration required

INDUSTRIAL DAY
Morning and Afternoon of Monday (May 6)
Pre-registration required.
These special sessions will focus on several current topics involving Magnetism in Industry.

A TECHNOLOGY PERSPECTIVE ON MRAM: STATUS, CHALLENGES, AND FUTURE DIRECTIONS
Join us for a special event on Magneto-resistive Random-Access Memory (MRAM) to delve into the status, challenges, and future directions of MRAM through insights shared by industry experts. This full-day event will cover both STT-MRAM (Spin-Transfer Torque MRAM) and SOT-MRAM (Spin-Orbit Torque MRAM) with a tutorial and the latest technological advancements in each domain. Designed to be educational and accessible, this event caters to a general audience, offering a valuable experience for both those with and without prior MRAM knowledge. Don't miss this opportunity to broaden your understanding of MRAM technology and stay informed about its exciting developments!

Monday, May 6th, 2024
Time: 9:00 AM - 11:45 AM & 1:30 PM - 4:00 PM

EVENT CO-ORGANIZERS
Guohan Hu - IBM T J Watson Research Center, USA
Jeong-Heon Park - Semiconductor R&D Center, Samsung Electronics, South Korea

INVITED SPEAKERS ON STT-MRAM
Daniel Worledge - IBM Almaden Research Center, USA
Sanjeev Aggarwal - Everspin Technologies, Inc., USA
Aleksandra Titova - GlobalFoundries, Germany
Hyunsung Jung - Semiconductor R&D Center, Samsung Electronics, South Korea

INVITED SPEAKERS ON SOT-MRAM
Luqiao Liu, Massachusetts Institute of Technology, USA
Kevin Garello, Spintec, France
Siddharth Rao, Compute and Memory Technologies, IMEC, Belgium
Hiroaki Yoda, YODA-S, Inc., Japan

AWARDS

IEEE NEIL SMITH AWARD FOR CONTRIBUTIONS TO THE UNDERSTANDING OF MAGNETIC PHENOMENA IN MATERIALS AND DEVICES
IEEE Neil Smith Award for Contributions to the Understanding of Magnetic Phenomena in Materials and Devices
The Neil Smith Award will be presented at Intermag this year for the best student contribution to the understanding of magnetic phenomena in Materials and Devices. The IEEE award is in memory of Neil Smith, whose productive industrial research career exemplified a mastery of experimental measurement techniques and theoretical analysis. An award committee will select winners in two subject categories: magnetic data storage & emerging memory/compute. The two winners will each receive a $1,000 cash prize. The winning submissions need to be original contributions that contain an advance in the understanding of a technologically relevant physical system or phenomena. The selection criteria will be based on originality and impact of the material, as well as quality of the oral or poster presentation.

INTERMAG 2024 Finalists

AB-02: **Spin-reorientation driven emergent phases, unconventional magnetotransport and magnetic anisotropy in a quasi-2D ferromagnet Fe_4GeTe_2**
Riju Pal - S. N. Bose National Centre for Basic Sciences, Leibniz Institute for Solid State and Materials Research, Institute for Solid State and Materials Physics, TU Dresden, Germany

AD-04: **Electrically controlled all-antiferromagnetic tunnel junctions on silicon**
Sevdenur Arpaci - Northwestern University, EUA

AC-08: **Symmetry engineering induced out-of-plane spin-orbit fields in WSe_2 and $NbIrTe_4$**
Wei Yang - Beihang University

BD-02: **Optical control of the magnetization emerging from the magnetic part of the optical field in the Landau-Lifshitz-Gilbert equation**
Benjamin Assouline - The Hebrew University of Jerusalem, Israel

CC-07: **Brownian reservoir computing approach for Gesture recognition by using geometrically confined skyrmion dynamics**
Grischa Beneke - Johannes Gutenberg-Universität Mainz

INTERMAG 2024 BEST POSTER AWARD
One poster will be awarded for each poster session of Intermag 2024.

Only in-person poster presentations will be eligible for this award, provided they meet the following requirements:
Posters must consist of well-prepared visual materials about the work.
The presenting author must be registered for the Conference and present their poster in person.
The presenting author must be present at their poster during their designated Poster Session to answer questions.
Selections, made by the Poster Session Chairs, will be based on the level of the research, quality of the poster, and clarity of the presentation.
Award winners will be announced during the Conference and prominently displayed onsite and on the Conference website.

INTERMAG 2024 BEST STUDENT ORAL PRESENTATION AWARD
The Best Student Oral Presentation Award is presented by the IEEE Magnetics Society to recognize

and encourage excellence in graduate studies of magnetism.
The winners will be selected by the Best Student Oral Presentation Award Committee and announced during the Conference. The award consists of a prize of $1000 USD and a certificate for the winners, and a $250 USD prize and certificate for each of the remaining finalists.

INTERMAG 2024 Finalists:
AB-02: **Spin-reorientation driven emergent phases, unconventional magnetotransport and magnetic anisotropy in a quasi-2D ferromagnet Fe_4GeTe_2**
Riju Pal **-** S. N. Bose National Centre for Basic Sciences; Leibniz Institute for Solid State and Materials Research; Institute for Solid State and Materials Physics, TU Dresden, Germany

AC-06: **Influence of metal-insulator transition of $NdNiO_3$ on the magnetization dynamics of metallic ferromagnet**
Biswajit Sahoo **-** Center for Memory and Recording Research, University of California San Diego, EUA

AF-10: **Magnetoelastic Resonators Functionalized with Metal Organic Frameworks for Wireless Humidity Detection**
Beatriz Sisniega Soriano **-** Universidad del Pais Vasco, Spain

BF-03: **Study of the Magnetoelectric Effect in PVDF/Ni Composites**
Federica Luciano **-** Imec, KU Leuven, Belgium

CG-07: **Self-induced inverse spin Hall effect in disordered FePt thin films**
Jose Luis Ampuero Torres **-** Instituto Balseiro, Argentina

SOCIAL AND CULTURAL EVENTS
Special Sessions and Events Chair: ***Luiz Augusto Sousa de Oliveira***

WELCOME RECEPTION
Monday (May 6) 9:00 - 9:00PM
No pre-registration needed

CONFERENCE RECEPTION
Wednesday (May 8) 7:00 - 10:00PM
An experience with typical Brazilian foods and beverages followed by an experience on Samba Culture by a Traditional Samba School.
No pre-registration needed

LAB TOUR ON MAGNETISM

Saturday (May 11) 10:00AM - 2:00PM
A visit to the Magnetism Laboratories at the Brazilian Center for Physics Research (CBPF) located at the Urca neighborhood.
Maximum number of participants: 80
Bus transfer will be organized by the conference
Pre-registration needed

Special City Tours and Soccer Game experience (at the Maracanã Stadium)
These on demand activities have to be booked with the partner travel agent Follow Up Tours (see link below)
https://www.net-expert.com/followuptour/Evento/intermag2024Im

MAGNETISM AS ART SHOWCASE
Intermag 2024 will host a Magnetism as Art Showcase to highlight the beauty of magnetism and magnetic materials. Submissions will be displayed on the Conference website, Social Media pages, and virtual platform. Additionally, submitted images may appear in the IEEE Magnetics Society Newsletter, and other communication platforms, where the author's name will be indicated. Four finalists will be selected by a panel of judges, and the winner will be selected by popular vote. The four finalists will be displayed onsite in Rio de Janeiro.

FUTURE INTERMAG CONFERENCES
1. **ICM 2024 - International Conference on Magnetism**
Link: https://www.icm2024.org/
Jun 2024 – 5 Jul 2024
Bologna, Italy

2. **MMM-Intermag 2025 - 16th Joint MMM-Intermag Conference**
Link: https://2025-joint.magnetism.org/
13 Jan 2025 – 17 Jan 2025
New Orleans, LA, USA

3. **MMM 2025 - 70th Annual Conference on Magnetism and Magnetic Materials**
27 Oct 2025 – 31 Oct 2025
Palm Beach, FL, USA

4. **INTERMAG 2026 - 2026 IEEE International Magnetics Conference**
April 2026
Manchester, UK

SPONSORS & EXHIBITORS

SUPPORT

TRAVEL SUPPORT

Provided by IEEE MAGNETICS

The INTERMAG 2024 Conference provides travel support to a limited number of students working in magnetism and magnetic materials who wish to attend the Conference. Student travel support is intended to partially offset travel costs. Additional support will be available specifically for students and researchers from underrepresented countries.

RECIFE MAGSOC CHAPTER SPECIAL SUPPORT

The IEEE Magnetics Society Recife Chapter is providing partial support for undergraduate and graduate students attending INTERMAG 2024. The funds may be used to cover expenses with transportation, food and accommodation during the event.

IEEE BRAIN TRAVEL AWARD

Provided by IEEE brain

The IEEE BRAIN provides 2 travel support awards for up to $750 per student working in the area of brain and magnetism who wish to attend the conference. Student travel support is intended to partially offset travel costs.

SPECIAL SUPPORT FOR BRAZILIANS

Due to the support of CAPES and CNPq Brazilian researchers (non-students) are eligible to receive discounts on the registration rate. The INTERMAG 2024 Conference will provide the discount to a limited number of researchers (with permanent positions or pos-docs) working in magnetism and magnetic materials who wish to attend the Conference.

Priority will be given to researchers without research grants to cover the registration expenses.

The effective discount depends on the amount effectively received from the Brazilian agencies.

CHILDCARE SUPPORT

Provided by IEEE MAGNETICS

INTERMAG 2024 will offer a limited number of childcare supports to parents with childcare responsibilities who wish to attend the conference. Participants who are bringing small children to the conference, or who incur extra expenses in leaving their children at home (i.e., extra day care or babysitting services), are invited to apply for reimbursement of allowable expenses upon receipt of digest acceptance notification.

PUBLICATION INTERMAG 2024

Jonathan Bird	Portland State University, United States
Juliano Casagrande Denardin	Universidad de Santiago de Chile (USACH), Chile
Marcio Assolin Correa	Universidade Federal do Rio Grande do Norte, Brazil
Min-Fu Hsieh	National Cheng Kung University, Taiwan
Nicoleta Lupu	National Institute of R&D for Technical Physics, Romania
Philip Pong	New Jersey Institute of Technology, United States
Radhika Barua	Virginia Commonwealth University, United States
Ron Jansen	National Institute of Advanced Industrial Science and Technology, Japan
Rachid Sbiaa	Sultan Qaboos University, Oman
Thierry Lubin	University of Lorraine, France
Wei-heng Hsu	Seagate Technology, United States

INTERMAG 2024 PROCOM ROSTER

1. SPINTRONICS	
Olena Gomonay	Johannes Gutenberg University Mainz, Germany
Seiji Mitani	National Institute for Materials Science, Japan
Masaki Mizuguchi	Nagoya University, Japan
Hao Zeng	University of Buffalo, United States
Alina Deac	Helmholtz-Zentrum Dresden-Rossendorf, Germany
Jung-Il Hong	Daegu Gyeongbuk Institute of Science and Technology, Korea (the Republic of)
Myung-Hwa Jung	Sogang University, Korea (the Republic of)
Romain Lebrun	Unité Mixte de Physique CNRS/Thales, France
Byong-Guk Park	Korea Advanced Institute of Science and Technology (KAIST), Korea (the Republic of)
Anjan Soumyanarayanan	A*STAR Institute of Materials Research and Engineering, Singapore

Hiromi Yuasa	**Kyushu Daigaku, Japan**
Jianhua Zhao	**Institute of Semiconductors, Chinese Academy of Sciences, China**
Liuyan Zhao	**University of Michigan, Ann Arbor, United States**
2. MEMORY, LOGIC, AND DATA STORAGE	
Yiming Huai	**Avalanche Technology, United States**
Yukiko Takahashi	**NIMS, Japan**
Varaprasad Bollapragada	**Carnegie Mellon University, United States**
Richard Brockie	**Western Digital, United States**
Qing Dai	**WDC, United States**
Jongill Hong	**Yonsei University, Korea (the Republic of)**
Mathias Kläui	**Universität Mainz, Germany**
3. MAGNETIZATION DYNAMICS AND MICROMAGNETICS	
Mi-Young Im	**Lawrence Berkeley National Laboratory, United States**
Joo-Von Kim	**Université Paris-Saclay, France**
Mehrdad Elyasi	**Tohoku University, Japan**
Giovanni Finocchio	**University of Messina, Italy**
Ki-Suk Lee	**Ulsan National Institute of Science and**

	Technology (UNIST), Korea (the Republic of)
Daniela Petti	**Politecnico di Milano, Italy**
4. ELECTRICAL MACHINES, MAGNETIC DEVICES AND CONTROL	
Yacine Amara	**Université Le Havre Normandie, France**
Kais Atallah	**University of Sheffield, United Kingdom**
Jonathan Bird	**Portland State University, United States**
Kenji Nakamura	**Tohoku University, Japan**
Philip Pong	**University of Hong Kong, Hong Kong**
Amr Adly	**Cairo University, Egypt**
Metin Aydin	**Kocaeli University, Turkey**
Xiao Chen	**The University of Sheffield, United Kingdom**
Hatem Elbidweihy	**United States Naval Academy, United States**
Ahmed Hemeida	**Aalto University, Finland**
Mohamed Ibrahim	**University of Ghent, Belgium**
Narayan Kar	**University of Windsor, Canada**
Elena Lomonova	**Technische Universiteit Eindhoven, Netherlands**

Smail Mezani	**Université de Lorraine, France**
Carlo Stefano Ragusa	**Politecnico di Torino, Italy**
Noureddine Takorabet	**Université de Lorraine, France**
Abdelmounaim Tounzi	**Univ. Lille, Arts et Metiers Institute of Technology, France**
Mi-Ching Tsai	**National Cheng Kung University, Taiwan**
Rong-Jie Wang	**Stellenbosch University, South Africa**
Yukihiro Yoshida	**Akita University, Japan**
5. SENSORS AND HIGH-FREQUENCY DEVICES	
Alexey Ustinov	**St. Petersburg Electrotechnical University, Russian Federation**
Stefano Bonetti	**Universita Ca' Foscari, Italy**
Yajie Chen	**Rogers Corp., United States**
Umut Parlak	**Technical University Dortmund, Germany**
6. MULTI-FUNCTIONAL MAGNETIC MATERIALS AND APPLICATIONS	
Ekkes Brück	**TU Delft, Netherlands**
Fanny Béron	**Universidad Estadual de Campinas, Brazil**
Lei Bi	**University of Electronic Science and Technology of China, China**
Jia-Yan Law	**University of Seville, Spain**

7. SOFT MAGNETIC MATERIALS	
Paola Tiberto	INRIM, Italy
Naoki Ito	Proterial, Ltd., Japan
Tibor Ovari	National Institute of Research and Development for Technical Physics, Romania
8. HARD MAGNETIC MATERIALS	
Nora Dempsey	Institut Néel CNRS, France
Cajetan Nlebedim	Ames Laboratory, US Department of Energy, United States
Pelin Tozman	Technical Unviesity of Darmstadt, Germany
9. MAGNETOELECTRONIC MATERIALS AND PHENOMENA	
John Heron	University of Michigan, United States
Fengxia Hu	Institute of Physics, Chinese Academy of Sciences, China
Jiamian Hu	University of Wisconsin-Madison, United States
Julia Lyubina	Evonik Operations GmbH, Germany
10. FUNDAMENTAL PROPERTIES AND COOPERATIVE PHENOMENA	
Jinke Tang	University of Wyoming, United States
Claudia Rodriguez Torres	IFLP (UNLP-CONICET), Argentina

Di Wu	**Fudan University, China**
11. NANO-STRUCTURED MATERIALS	
David Lederman	**UC Santa Cruz, United States**
Cristina Bran	**Spanish National Research Council (CSIC)), Spain**
Yasushi Endo	**Tohoku University, Japan**
Juliano Denardin	**Universidad de Santiago, Chile**
Jyoti Ranjan Mohanty	**IIT Hyderabad, India, India**
12. Biomagnetics	
Ravi Hadimani	**Virginia Commonwealth University, United States**
Ana García-Prieto	**University of the Basque Country UPV/EHU, Spain**
Akihiro Kuwahata	**Tohoku University, Japan**
Robert Morel	**IRIG/SPINTEC, France**
13. MICROSCOPY, IMAGING, AND CHARACTERIZATION	
Peter Fischer	**Lawrence Berkeley National Laboratory, United States**
Trevor Almeida	**University of Glasgow, United Kingdom**
Charudatta Phatak	**Argonne National Laboratory, United States**
14. INTERDISCIPLINARY AND EMERGING TOPICS	

Arti Kashyap	**Indian Institute of Technology Mandi, India**
Gustavo Dalpian	**Universidade de São Paulo, Brazil**
Yuko Ichiyanagi	**Yokohama National University, Japan**
Names in blue represent Team Leads	

ORGANIZING COMMITTEE	
GENERAL CHAIRS	
Rubem Luis Sommer	CBPF -Brazil
Mingzhong Wu	Northeastern University - US
PAST INTERMAG CHAIRS	
Bethanie Stadler	University of Minnesota, United States
Koki Takanashi	JAEA/Tohuku University
NEXT INTERMAG CHAIR	
Mark Stiles	NIST
ON-LINE ACTIVITIES CHAIRS	
João Paulo Sinnecker	CBPF Brazil
Laura Steren	UBA - Argentina
PROGRAM CHAIRS	
Antonio Azevedo	UFPE - Brazil
Nicoleta Lupu	NRDTP - Romania
Young Keun Kim	Korea University - Korea
PUBLICATION CHAIRS	
Jean Anne Incorvia	U. Texas Austin - US
Felipe Bohn	UFRN - Brazil
TREASURERS	
Adilson De Oliveira	UFSCar - Brazil
Chris J. Rea	Seagate - US
EXHIBITS AND SPONSORHIP CHAIR	

Fernando Landgraf	USP - Brazil
PUBLICITY CHAIRS	
Diana Leitão	Eindhoven U. of Technology - Holland
Maria Salvador Fernandez	Uuniversity of Oviedo - Spain
Veronica Savignano	B-MRS - Local Support
SPECIAL EVENTS CHAIR	
Luiz Augusto Sousa Oliveira	UFRJ - Brazi
BEST STUDENT PRESENTATION AWARD CHAIR	
Hyunsoo Yang	N. University of Singapore - Singapore
IEEE REPRESENTATIVE	
Rudi Schaefer	IFW Dresden - Germany
ABSTRACTS AND PUBLICATIONS MANAGER	
Regina Mohr	Magnetic Society -USA
LOCAL COMMITTEE	
Carlos Hall Barbosa	PUC-Rio
João Paulo Sinnecker	CBPF
Luiz Augusto Sousa de Oliveira	UFRJ
Luiz Sampaio	CBPF
Magda Fontes (Head)	CBPF
Nilson Antunes	UERJ
Rubem Sommer	CBPF
Wallace Nunes	UFF
NATIONAL SUPPORT COMMITTEE	
Angela Klautau	UFPA
Dante Mosca	UFPR
Eduardo Padrón	UFPE

Fanny Beròn	UNICAMP
Joaquim Mendes	UFV
Júlio Crieginsky	CNPEM
Kleber Pirotta	UNICAMP
Lucio Dorneles	UFSM
Magda Fontes	CBPF
Márcio Assolin Corrêa	UFRN
Milton Tumelero	UFRGS
***Sérgio Magalhães* (Head)**	UFRGS
Wallace Nunes	UFF
LATIN AMERICA SUPPORT COMMITTEE	
João Paulo Sinnecker (Head)	CBPF - Brazil
Laura Steren (Head)	UBA - Argentina
Arbélio Pentón Madrigal	Universidad de La Habana - Cuba
Flavia Gomez Albarracín	Universidad de La Plata - Argentina
Pedro Landeros	Universidad Técnica Federico Santa María - Chile
Justiniano Quispe Macatoma	Universidad Nacional Mayor de San Marcos - Peru
Pedro José Silva Mujica	Instituto Venezolano de Investigaciones Científicas - Venezuela
Paula Bercoff	Universidad Nacional de Córdoba - Argentina
Claudia Rodriguez Torres	Universidad Nacional de La Plata - Argentina
Names in blue represent Team Leads	

JOIN THE MAILING LIST

Join the Conference mailing list to receive email announcements and updates for upcoming IEEE Magnetics Society sponsored Conferences, including the Magnetism and Magnetic Materials Conferences (MMM), Joint MMM-INTERMAG, and INTERMAG.

https://ieeemagnetics.us7.list-manage.com/subscribe?u=a56289c418698825973a992ba&id=0eebb85c16

POLICIES

Conference Code of Conduct

The objective of the Conference organizers is to create a collegial, inclusive, and professional environment at the Conference in order to facilitate and support open scientific discourse and advance knowledge in the field of magnetism. Creating this environment is the responsibility of all participants, including attendees, speakers, vendors, exhibitors, conference management staff and organizers. It is the policy of the Conference that all meeting and conference participants will conduct themselves in a professional manner that is welcoming and free from any form of bias, discrimination, harassment, or retaliation.

Accordingly, participants are required to treat each other with respect and consideration and avoid any actions or statements based on individual characteristics such as age, ancestry, color, disability or handicap, national origin, race, religion, gender, sexual or affectional orientation, gender identity, gender expression, appearance, matriculation, political affiliation, marital status, veteran status, or any other characteristic protected by law. Discriminatory or harassing behavior of any kind will not be tolerated. Harassment includes but is not limited to inappropriate or intimidating behavior and language, unwelcome jokes or comments, unwanted touching or attention, offensive images, and stalking.

Violations of this policy, or those additionally referred to in the (IEEE Code of Conduct), should be reported to the Conference organizers, management staff, or to the IEEE Magnetics Society President. Sanctions may range from verbal or written warning to ejection from the meeting without refund. Retaliation for complaints of inappropriate conduct will not be tolerated.

PROGRAM

Session AA
NEW DIRECTIONS AND CHALLENGES IN NEUROMORPHIC SPINTRONICS

Pedro Landeros, Chair
Universidad Técnica Federico Santa María, Valparaiso, Chile

8:30

AA-01. **Machine Learning in Networks of Mathematically Agnostic Dynamical Devices.** ***(Invited)*** L. Manneschi[1], I.T. Vidamour[1], K.D. Stenning[2], J. Gartside[2], C. Swindells[1], G. Venkat[1], D. Griffin[3], S. Stepney[3], W.R. Branford[2], T. Hayward[1], M.O. Ellis[1] and *E. Vasilaki*[1] *1. University of Sheffield, Sheffield, United Kingdom; 2. Imperial College, London, United Kingdom; 3. University of York, York, United Kingdom*
View Digest Text

9:00

AA-02. **Reprogrammable Analogue Multi-functional Nanodevices: the building blocks of Neuromorphic Spintronics.** ***(Invited)*** *A. Jenkins*[1] and R. Ferreira[1]
1. Spintronics, International Iberian Nanotechnology Laboratory, Braga, Portugal
View Digest Text

9:30

AA-03. **Harnessing stochastic properties of spintronic nanodevices for cognitive computing.** ***(Invited)*** N. Phan[1], L. Soumah[1], L. Desplat[1], N. Prasad[2,3], A. Hakam[1], A. Sidi El Valli[1], L. Anghel[1], L. Benetti[4], A. Jenkins[4], R. Ferreira[4], F. Disdier[1], L.D. Buda-Prejbeanu[1], R. Sousa[1], A. Madhavan[2,5], 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

10:00

AA-04. **Advancing Edge Computing: Leveraging MRAM Devices for Enhanced Efficiency and Security.** ***(Invited)*** *S. Li*[1]
1. Beihang University, Beijing, China
View Digest Text

10:30

AA-05. **Applications of Magnetic Straintronics to Unconventional Computing.** ***(Invited)*** *S. Bandyopadhyay*[1] *1. Virginia Commonwealth University, Richmond, VA, United States*
View Digest Text

11:00

AA-06. **Exploiting the potential of magnetic tunnel junctions for spiking and dynamical neurons.** ***(Invited)*** *D. Rodrigues*[1], M. Carpentieri[1] and G. Finocchio[2] *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*
View Digest Text

OCEANIA VI & VII

Session AB
INTERDISCIPLINARY TOPICS: CHIRALITY, MICROMAGNETIC AND NANOMAGNETIC STRUCTURES

Silvia Tacchi, Chair
Consiglio Nazionale delle Ricerche, Perugia, Italy

8:30

AB-01. **Chiral Magnetic Phases in Moire Bilayers of magnetic Dipoles.** ***(Invited)*** I. Tapia[1], X. Cazor[1] and *P. Mellado*[1] *1. Department of Engineering and Sciences, Universidad Adolfo Ibañez, Santiago, Chile*
View Digest Text

9:00

AB-02. **Spin-reorientation driven emergent phases, unconventional magnetotransport and magnetic anisotropy in a quasi-2D ferromagnet Fe_4GeTe_2.** *R. Pal*[1,2,5*^], B. Pal[1], S. Mondal[3], R. Sharma[4], J. Abraham[2,5], T. Das[4], B. Buchner[2,5], V. Kataev[2,5], P. Mandal[1], A. Alfonsov[2,5] and A. Pal[1] *1. Department of Condensed Matter and Materials Physics, S. N. Bose National Centre for Basic Sciences, Block JD, Sector III, Salt Lake, 700106, Kolkata, India; 2. Leibniz Institute for Solid State and Materials Research, Helmholtzstr. 20, D-01069, Dresden, Germany; 3. Saha Institute of Nuclear Physics, HBNI, 1/AF Bidhannagar, Calcutta 700064, Kolkata, India; 4. Department of Physics, Indian Institute of Science, Bengaluru 560012, Bengaluru, India; 5. Institute for Solid State and Materials Physics, TU Dresden, D-01062, Dresden, Germany*
View Digest Text

9:15

AB-04. **Engineered magnetic domain patterns in exchange-biased thin films: A technological platform for multipurpose close-to-substrate transport of magnetic particles in liquids.** *R. Huhnstock*[1] and A. Ehresmann[1] *1. Institute of Physics and Center for Interdisciplinary Nanostructure Science and Technology (CINSaT), University of Kassel, Kassel, Germany*
View Digest Text

9:30

AB-05. **Halbach Array Collaborative Robot End Effector for Advanced Handling of Magnetic Materials.** *L. Schorr*[1], I. Scaparo[1], I. Thakur[1], J.P. Nunez[1], F. Hanna[1] and R.L. Hadimani[1] *1. Department of Mechanical and Nuclear Engineering, Virginia Commonwealth University, Henrico, VA, United States*
View Digest Text

9:45

AB-06. **Connecting magnetization dynamics measurements of suspended magnetic nanoparticles through the fluctuation-dissipation theorem.** *K. Everaert*[1,2,3], D. Eberbeck[1], R. Körber[1], P. Radon[1], B. Van Waeyenberge[2], J. Leliaert[2] and F. Wiekhorst[1] *1. Physikalisch-Technische Bundesanstalt, Berlin, Germany; 2. Ghent University, Ghent, Belgium; 3. University of Maryland, College Park, MD, United States*
View Digest Text

10:00

AB-07. **Enhanced Magnetism through Controlled Nanostructuring and Advanced Correlative Microscopy Probes.** ***(Invited)*** *A. Fraile Rodríguez*[1,2], C. Moya[1,2], M. Escoda-Torroella[1,2], J. Rodriguez Alvarez[1,2], A.I. Figueroa[1,2], I. García[1], I. Batalla Ferrer-Vidal[1], A. Gallo-Cordova[3], L. Aballe[4], M.d. Morales[3], A. Labarta[1,2] and X. Batlle[1,2] *1. Física de la Matèria Condensada, Universitat de Barcelona, Barcelona, Spain; 2. Institut de Nanociència i Nanotecnologia (IN2UB), Universitat de Barcelona, Barcelona, Spain; 3. Instituto de Ciencia de Materiales de Madrid (ICMM-CSIC), Madrid, Spain; 4. Experiments Division, ALBA Synchrotron Light Facility, CELLS, Barcelona, Spain*
View Digest Text

10:30

AB-08. **Sound as an Additional Tool for Spin-Wave Dynamics Analysis.** *S. Pile*[1], O. Lesota[1], S.D. Peter[1], C. Humer[1] and M. Gasser[2] *1. Johannes Kepler University Linz, Linz, Austria; 2. University of Applied Arts Vienna, Vienna, Austria*
View Digest Text

10:45

AB-09. **Magnetic Properties Stability from 5 K to 800 K in Metastable γ-$Fe_{85}Pd_{15}$ Nanowires.** P.G. Bercoff[1,2], S. Aprea[1,2], E. Céspedes[3], J. Martínez[3], S. Urreta[1] and *M. Vázquez*[3] *1. Facultad de Matemática, Astronomía, Física y Computación, Universidad Nacional de Córdoba, Córdova, Argentina; 2. Instituto de Física Enriique Gaviola (IFEG), CONICET, Córdoba, Argentina; 3. Institute of Materials Science of Madrid (ICMM-CSIC), Madrid, Spain*
View Digest Text

11:00

AB-11. **Simulations of magnetic nanoparticles with internal magnetization dynamics for magnetic hyperthermia.** *S. Helbig*[1], A. Kuznetsov[1], D. Mostarac[1], D. Zehner[1], C. Abert[1], P. Sánchez[1,2], S. Kantorovich[1] and D. Suess[1] *1. Faculty of Physics, University of Vienna, Vienna, Austria; 2. Physics Department, University of the Balearic Islands, Palma de Mallorca, Spain*
View Digest Text

OCEANIA IX & X

Session AC
SPIN TORQUE AND VOLTAGE-CONTROLLED MAGNETIC ANISOTROPY

Hari Srikanth, Chair
University of South Florida, Tampa, FL, United States

8:30

AC-04. **Non-Relativistic Spin Currents and Torques in Antiferromagnets.** ***(Invited)*** *J. Zelezny*[1], S. Ghosh[1], R. González-Hernández[2] and A. Manchon[3] *1. FZU - Institute of Physics, Czech Academy of Sciences, Prague, Czechia; 2. Universidad del Norte, Barranquilla, Colombia; 3. Aix-Marseille Univ, Marseille, France*
View Digest Text

9:00

AC-02. **Reconfigurable classifier based on spin torque driven magnetization switching in electrically connected magnetic tunnel junctions.** A. López[1,2], D. Costa[3], T. Böhnert[3], P.P. Freitas[3], R. Ferreira[3], I. Barbero[1], J. Camarero[2,4], C. León[1,5], J. Santamaria[1,5], J. Grollier[6] and *M. Romera*[1,5] *1. Universidad Complutense de Madrid, Madrid, Spain; 2. IMDEA Nanociencia, Madrid, Spain; 3. International Iberian Nanotechnology Laboratory (INL), Braga, Portugal; 4. Universidad Autónoma de Madrid, Madrid, Spain; 5. Lab. de Heteroestructuras con Aplicación en Espintrónica, Unidad Asociada UCM/CSIC, Madrid, Spain; 6. Unité Mixte de Physique CNRS, Thales, Université Paris-Sud, Université Paris-Saclay, Palaiseau, France*
View Digest Text

9:15

AC-03. **The Effect of Thermal Fields on Spin Hall Switching in Devices Stabilized by In-Plane Magnetocrystalline Anisotropy.** *S. Nallan*[1] and J. Zhu[1] *1. Department of Electrical and Computer Engineering, Carnegie Mellon University, Pittsburgh, PA, United States*
View Digest Text

9:30

AC-05. **Orbital currents and torques on transition metals using interfacial orbital Rashba effect.** *B. Bony*[1], S. Krishnia[1], E. Rongione[2], L. Vicente Arche[1], T. Denneulin[3], Y. Lu[3], R.E. Dunin-Borkowski[3], S. Collin[1], A. Fert[1], J. George[1], N. Reyren[1], J. Moussy[4], M. Viret[4], V. Cros[1] and H. Jaffrès[1] *1. Laboratoire Albert Fert, CNRS-Thales - Université Paris-Saclay, Bourg-La-Reine, France; 2. Catalan Institute of Nanoscience and Nanotechnology, Barcelona, Spain; 3. Ernst Ruska-Centre for microscopy and spectroscopy with Electrons and Peter Grünberg Institute, Jülich, Germany; 4. Service de Physique de l'Etat Condensé, CEA, CNRS, Gif-sur-Yvette, France*
View Digest Text

9:45

AC-06. **Influence of metal-insulator transition of $NdNiO_3$ on the magnetization dynamics of metallic ferromagnet.** *B. Sahoo*[1,3*], K. Akilan[2], S. Das[1], S. Petit-Watelot[2], A. Frano[1] and E. Fullerton[1,3] *1. Department of Physics, University of California San Diego, La Jolla, CA, United States; 2. Institut Jean Lamour, Nancy, France; 3. Center for Memory and Recording Research, University of California, La Jolla, CA, United States*
View Digest Text

10:00

AC-08. **Symmetry engineering induced out-of-plane spin-orbit fields in WSe_2 and $NbIrTe_4$.** *W. Yang*[1,2,3^], D. Zhou[1,2], X. Wang[1], J. Rojas-Sanchez[3], X.L. Lin[1,2] and W. Zhao[1,2] *1. National Key Lab of Spintronics, Institute of International Innovation, Beihang University, Hangzhou, China; 2. Fert Beijing Institute, Beihang University, Beijing, China; 3. Université de Lorraine, Institut Jean Lamour, Nancy, France*
View Digest Text

10:15

AC-09. **Experimental Analysis of the Impact of Voltage Pulse Parameters on the Writing Performance in VCMA-MRAM.** *D. Favaro*[1,2], W. Kim[1], S. Ranjbar[1], M. Gama Monteiro[1], R. Carpenter[1], K. Sankaran[1], S. Rao[1], J. Van Houdt[1,3], K. Temst[1,2] and S. Couet[1] *1. Imec, Leuven, Belgium; 2. Quantum Solid State Physics, Department of Physics and Astronomy, KU Leuven, Leuven, Belgium; 3. Semiconductor Physics, Department of Physics and Astronomy, KU Leuven, Leuven, Belgium*
View Digest Text

10:30

AC-10. **Enhancement of voltage-controlled magnetic anisotropy (VCMA) via electron depletion utilizing a W/Pt/W high work function underlayer.** Y. Chen[1], J. Qi[1], *D. Lyu*[1], T. Peterson[2] and J. Wang[1] *1. Department of Electrical and Computer Engineering, University of Minnesota, Minneapolis, MN, United States; 2. School of Physics and Astronomy, University of Minnesota, Minneapolis, MN, United States*
View Digest Text

10:45

AC-11. **Controllable Synthesis and Property Manipulation of 2D (nonlayered) Magnetic Nanomaterials.** *Y. Hou*[1] *1. Sun Yat-Sen University, Shenzhen, China*
View Digest Text

OCEANIA I & II

Session AD
MRAM APPLICATIONS AND MAGNETIC RECORDING

Jonathan Sun, Chair
IBM Research, Yorktown Heights, NY, United States

8:30

AD-01. **Self compensated ferromagnetic micro-structures: Forming a dense superconducting memory.** ***(Invited)*** C. Pot[1], *W.F. Holmes-Hewett*[2], E. Anton[1], J. Miller[2], B. Ruck[1] and J. Trodahl[1] *1. Victoria University of Wellington, Wellington, New Zealand; 2. Robinson Research Institute, Wellington, New Zealand*
View Digest Text

9:00

AD-02. **Origin of the Switching Current Reduction in PtCu-SOT-MRAM.** *W. Janssens*[1,2], G. Talmelli[1], R. Carpenter[1], V. Nguyen[1], K. Cai[1], K. Wostyn[1], S. Couet[1] and J. De Boeck[1,2] *1. imec, Leuven, Belgium; 2. Department of Electrical Engineering, KU Leuven, Leuven, Belgium*
View Digest Text

9:15

AD-03. **Decision-Feedback Single-Layer Read Reconstruction and Separation for Three-dimensional Magnetic Recording.** Y. Liao[1,3], K. Zhang[1,3], Y. Jian[2,3], S. Wang[4], J. Chen[1,2,3], P. Lu[1,2,3] and *K. Luo*[2,3] *1. School of Computer Science & Technology, Huazhong University of Science & Technology, Wuhan, China; 2. Wuhan National Laboratory for Optoelectronics, Huazhong University of Science and Technology, Wuhan, China; 3. Key Laboratory of Information Storage System, Engineering Research Center of Data Storage Systems and Technology, Huazhong University of Science and Technology, Wuhan, China; 4. School of Public Health, Hubei University of Medicine, Shiyan, China*
View Digest Text

9:30

AD-04. **Electrically controlled all-antiferromagnetic tunnel junctions on silicon.** *S. Arpaci*[1,2^], J. Shi[1], V. Lopez-Dominguez[1,3], V. K. Sangwan[4], F. Mahfouzi[5], J. Kim[5], J.G. Athas[1], M. Hamdi[1], C. Aygen[1], C. Phatak[6], M. Carpentieri[7], J.S. Jiang[6], M.A. Grayson[1,2], N. Kioussis[5], G. Finocchio[8], M.C. Hersam[1,2,4] and P. Khalili Amiri[1,2] *1. Department of Electrical and Computer Engineering, Northwestern University, Evanston, IL, United States; 2. Applied Physics Program, Northwestern University, Evanston, IL, United States; 3. Institute of Advanced Materials (INAM), Universitat Jaume I, Castellón, Spain; 4. Department of Materials Science and Engineering, Northwestern University, Evanston, IL, United States; 5. Department of Physics and Astronomy, California State University Northridge, Northridge, CA, United States; 6. Materials Science Division, Argonne National Laboratory, Lemont, IL, United States; 7. Department of Electrical and Information Engineering, Politecnico di Bari, Bari, Italy; 8. Department of Mathematical and Computer Sciences, Physical Sciences and Earth Sciences, University of Messina, Messina, Italy*
View Digest Text

9:45

AD-05. **Electrical manipulation of exchange bias for memory and logic applications.** *A. Du*[1], D. Zhu[1], K. Cao[1], Z. Zhang[1], Z. Guo[1], K. Shi[1], C. Zhao[1], Y. Zhang[1], S. Luo[2], A. Fert[3] and W. Zhao[1] *1. Beihang University, Beijing, China; 2. Huawei Technologies, Shenzhen, China; 3. University of Paris-Saclay, Paris, France*
View Digest Text

10:00

AD-06. **Synthetic Antiferromagnetic/Ferromagnetic Spin-Orbit Torque Devices with an Oxide Spacer.** *Y. Huang*[1], C. Cheng[1], J. Hsu[2], Y. Wu[1], Y. Lin[1], W. Chang[3] and Y. Tseng[1] *1. Department of Materials Science & Engineering, National Yang Ming Chiao Tung University, Hsinchu, Taiwan; 2. Industry Academia Innovation School, National Yang Ming Chiao Tung University, Hsinchu, Taiwan; 3. Powerchip Semiconductor Manufacturing Corporation, Hsinchu, Taiwan*
View Digest Text

10:15

AD-08. **How Magnetic Inhomogenieties Relate to Device Performance for Magnetic Storage Devices.** *V.J. Borras*[1], R. Carpenter[2], S. Couet[2], U. Celano[3,4], L. Zaper[1,5], A. Stark[1], M. Munsch[1], H. Zhong[1], C. Adelmann[4], P. van der Heide[4], P. Maletinsky[5,1] and P. Rickhaus[1] *1. Qnami, Muttenz, Switzerland; 2. MRAM, Imec, Leuven, Belgium; 3. Arizona State University, Phoenix, AZ, United States; 4. Imec, Leuven, Belgium; 5. University of Basel, Basel, Switzerland*
View Digest Text

10:30

AD-09. **Reduction of writing temperature by the exchange-coupled FePt-C/Ru-C/FePt-C tri-layer films with different T_c.** *D. Ogawa*[1], A. Bolyachkin[1], D. Angayarkanni Ramamurthy[1,2], N. Kulesh[1], H. Sepehri-Amin[1,2] and Y. Takahashi[1] *1. Research Center for Magnetic and Spintronic Materials, National Institute for Materials Science (NIMS), Tsukuba City, Japan; 2. University of Tsukuba, Tsukuba City, Japan*
View Digest Text

10:45

AD-10. **Effect of Curie Temperature Distributions on the Areal Density Capability of Heat-Assisted Magnetic Recording.** *S. Greaves*[1], H. Suto[2], Y. Nakamura[3] and Y. Kanai[4] *1. Tohoku University, Sendai, Japan; 2. National Institute for Materials Science (NIMS), Tsukuba, Japan; 3. Ehime University, Matsuyama, Japan; 4. Niigata Institute of Technology, Kashiwazaki, Japan*
View Digest Text

11:00

AD-11. **Quaternary Neural Network Equalization for Three-Dimentional Magnetic Recording.** *K. Luo*[1], Y. Wu[2], Y. Liao[2], S. Wang[3], Y. Jian[1], J. Chen[1] and P. Lu[2] *1. Wuhan National Laboratory for Optoelectronics, Huazhong University of Science & Technology, Wuhan, China; 2. School of Computer Science & Technology, Huazhong University of Science and Technology, Wuhan, China; 3. School of Public Health, Hubei University of Medicine, Shiyan, China*
View Digest Text

Session AE
FUNDAMENTAL PROPERTIES, COOPERATIVE PHENOMENA AND COMPUTATIONAL MAGNETISM

Artur Carbonari, Chair
Instituto de Pesquisas Energeticas e Nucleares, São Paulo, Brazil

8:30

AE-01. **Cluster magnetic toroidal quadrupole and anomalous Hall effect in $NiCo_2O_4$ thin film.** ***(Invited)*** *H. Koizumi*[1]
1. Tohoku University (CSIS), Sendai, Japan
View Digest Text

9:00

AE-02. **Dimension-Dependent Critical Scaling Analysis and Emergent Competing Interaction Scales in a 2D Van der Waals magnet $Cr_2Ge_2Te_6$.** *P.C. Mahato*[1], S. Saha[1], B. Das[2], S. Datta[2], R. Mondal[3], S. Mal[4], A. Garg[5], P. Sen[4] and S. Banerjee[1] *1. Department of Physics, Indian Institute of Technology, Kanpur, Kanpur, India; 2. School of Physical Sciences, Indian Association for the Cultivation of Science, Jadavpur, Kolkata, India; 3. UGC-DAE Consortium for Scientific Research, Kolkata Centre, Bidhannagar, Kolkata, India; 4. Harish-Chandra Research Institute, HBNI, Allahabad, India; 5. Department of Sustainable Energy Engineering, Indian Institute of Technology Kanpur, Kanpur, India*
View Digest Text

9:15

AE-03. **MnGaGe nanomagnets epitaxially grown on GaAs.** *R.M. Araujo*[1,2], C.A. Costa[3], I.T. Neckel[2] and D.H. Mosca[4] *1. PPG Engenharia e Ciência dos Materiais - PIPE, Universidade Federal do Paraná, Curitiba, Brazil; 2. Laboratório Nacional de Luz Síncrotron - LNLS, Centro Nacional de Pesquisa em Energia e Materiais - CNPEM, Campinas, Brazil; 3. Laboratório Nacional de Nanotecnologia - LNNano, Centro Nacional de Pesquisa em Energia e Materiais - CNPEM, Campinas, Brazil; 4. PPG Física, Universidade Federal do Paraná, Curitiba, Brazil*
View Digest Text

9:30

AE-04. **Automated analysis of magnetic domain structure using feature extended Landau free energy theory.** *M. Kotsugi*[1] *1. Tokyo University of Science, Katsuhika, Japan*
View Digest Text

9:45

AE-05. **Deconvolution of Magnetic Field by Coupling Efficiency Tensor of TMR Sensor Array.** *J. Rice*[1,2] *1. Allegro Microsystems, Boulder, CO, United States; 2. Crocus Technology, Lafayette, CO, United States*
View Digest Text

10:00

AE-07. **Simulation Acceleration Through a Data-Driven Technique for Non-Linear Dynamics in Vortex-Based Spin-Torque Nano-Oscillators.** *F. Abreu Araujo*[1], C. Chopin[1,2], A. Moureaux[1] and S. de Wergifosse[1] *1. IMCN / BSMA, Université Catholique de Louvain, Louvain-la-Neuve, Belgium; 2. SPINTEC, CEA, Grenoble, France*
View Digest Text

10:15

AE-08. **Polarity Influence of Poles on Positional Accuracy in Absolute Encoders.** K. Peng[1] and *J. Chang*[1,2] *1. Department of Power Mechanical Engineering, National Tsing Hua University, Hsinchu, Taiwan; 2. Department of Mechanical and Computer-Aided Engineering, National Formosa University, Huwei Township, Taiwan*
View Digest Text

10:30

AE-09. **NeuralMag: An Open-Source Nodal Finite-Difference Code for Inverse Micromagnetics.** *C. Abert*[1], S. Pathak[2], R. Kraft[1], A. Voronov[1], R. Allayarov[1], F. Bruckner[1], S. Koraltan[1], S.J. Holt[2], M. Lang[2], T. Schrefl[3], H. Fangohr[2] and D. Suess[1] *1. University of Vienna, Vienna, Austria; 2. Max Planck Institute for the Structure and Dynamics of Matter, Hamburg, Germany; 3. University for Continuing Education Krems, Wiener Neustadt, Austria*
View Digest Text

10:45

AE-10. **Quantum thermal expectation values from an effective atomistic spin dynamics model using path integrals.** *T. Nussle*[1], S. Nicolis[2] and J. Barker[1] *1. School of Physics and Astronomy, University of Leeds, Leeds, United Kingdom; 2. Institut Denis Poisson, Université de Tours, Tours, France*
View Digest Text

11:00

AE-11. **Discretization Anisotropy In Micromagnetics.** *S.J. Holt*[1,2], M. Lang[1,2], S.A. Pathak[1,2] and H. Fangohr[1,2,3] *1. Max Planck Institute for the Structure and Dynamics of Matter, Hamburg, Germany; 2. Center for Free-Electron Laser Science, Hamburg, Germany; 3. The University of Southampton, Southampton, United Kingdom*
View Digest Text

EUROPA II

Session AF
MAGNETO-OPTIC AND MAGNETO-ELASTIC MATERIALS AND DEVICES

Ekkes Brück, Co-Chair
TU Delft, Delft, Netherlands
Fanny Béron, Co-Chair
Universidad Estadual de Campinas, Campinas, Brazil

8:30

AF-01. **Terahertz and far infrared magneto-optics in emergent magnets.** ***(Invited)*** *Y. Takahashi*[1,2] *1. The University of Tokyo, Tokyo, Japan; 2. Center for Emergent Matter Science, RIKEN, Wako, Japan*
View Digest Text

9:00

AF-02. **Efficient Synthesis and Magneto-Optical Enhancement of Au–Fe_3O_4 Hetero-dimer Nanoparticles with Triiron Dodecacarbonyl.** *L. Tonthat*[1], T. Ogawa[2] and S. Yabukami[2] *1. Department of Electrical Engineering, Tohoku University, Sendai, Japan; 2. Tohoku University, Sendai, Japan*
View Digest Text

9:15

AF-03. **Magnetooptical Ce:YIG Film with Maze-Shaped Magnetic Domains on GGG Substrate.** *T. Goto*[1], Y. Yoshihara[1], T. Koguchi[1], T. Watanabe[2], K. Mori[1], H. Miyashita[1], M. Inoue[1], C. Ross[3] and K. Ishiyama[1] *1. Research Institute of Electrical Communication, Tohoku University, Sendai, Japan; 2. Shin-Etsu Chemical Co., Ltd., Annaka, Japan; 3. Massachusetts Institute of Technology, Cambridge, MA, United States*
View Digest Text

9:30

AF-04. **Magnetoelastic Coupling of Surface Spin & Surface Acoustic Waves.** *N. Homrocky*[1], C. Trevillian[1] and V. Tyberkevych[1] *1. Department of Physics, Oakland University, Rochester, MI, United States*
View Digest Text

9:45

AF-05. **Self-consistent time integration of the dynamics of surface acoustic waves and spin waves in magnetic films.** *P. Flauger*[1,2], M. Küß[3], M.K. Steinbauer[1,2], M. Albrecht[3] and C. Abert[1,2] *1. Faculty of Physics, University of Vienna, Vienna, Austria; 2. University of Vienna Research Platform MMM Mathematics - Magnetism - Materials, University of Vienna, Vienna, Austria; 3. Institute of Physics, University of Augsburg, Augsburg, Germany*
View Digest Text

10:00

AF-06. **Magnetorheological printable elastomers: from optimizing performance to self-sensing devices.** ***(Invited)*** *S. Lanceros-Mendez*[1] *1. Basque Center for Materials, Applications and Nanostructures, BC Materials, Leioa, Spain*
View Digest Text

10:30

AF-07. **Comparison of Torque Generated by In-Plane and Out-of-Plane Anisotropic Magnetorheological Elastomers.** *H. Htet*[1], L. Cestarollo[2] and A. El-Ghazaly[1] *1. Department of Electrical and Computer Engineering, Cornell University, Ithaca, NY, United States; 2. Department of Materials Science and Engineering, Cornell University, Ithaca, NY, United States*
View Digest Text

10:45

AF-08. **U-shape Magnetostrictive Harvester: Design and Experimental Validation.** *D. Gandia*[1], E. Garaio[1], J. Beato-Lopez[1], I. Royo-Silvestre[1] and C. Gomez-Polo[1] *1. Department of Science, UPNA, Pamplona, Spain*
View Digest Text

11:00

AF-09. **Piezomagnetism in Cr-dopped $Fe_{65}Co_{35}$ alloy.** I. Braga Silva[1], F. Froes[1], H. Natan Alves Ferreira[1], O. Hubert[2] and *C. Bormio-Nunes*[1] *1. Departamento de Engenharia de Materiais, Universidade de São Paulo - Escola de Engenharia de Lorena, Lorena, Brazil; 2. ENS Paris-Saclay, Université Paris-Saclay, Gif-sur-Yvette, France*
View Digest Text

11:15

AF-10. **Magnetoelastic Resonators Functionalized with Metal Organic Frameworks for Wireless Humidity Detection.** *B. Sisniega Soriano*[1*], R. Fernández de Luis[2], J. Gutiérrez[1,2] and A. García-Arribas[1,2] *1. Departamento de Electricidad y Electrónica, Universidad del Pais Vasco, Leioa, Spain; 2. BC Materials, Applications and Nanostructures, Leioa, Spain*
View Digest Text

EUROPA IV

Session AG
SKYRMIONS AND MAGNETIC HETEROSTRUCTURES

Johanna Fischer, Chair
CEA-SPINTEC, Grenoble, France

8:30

AG-01. **Skyrmion-based applications: recent developments and future directions.** ***(Invited)*** *R. Tomasello*[1], M. Carpentieri[1] and G. Finocchio[2] *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*
View Digest Text

9:00

AG-02. **The role of interfacial atomic intermixing in the formation of skyrmions.** *P. Costa Carvalho*[1], I. de Paula Miranda[2], J. Brandao[3], A. Bergman[2], J.C. Cezar[3], A.B. Klautau[4] and H.M. Petrilli[1] *1. University of Sao Paulo, São Paulo, Brazil; 2. Uppsala University, Uppsala, Sweden; 3. Centro Nacional de Pesquisa em Energia e Materiais, São Paulo, Brazil; 4. Federal University of Pará, Belém, Brazil*
View Digest Text

9:15

AG-03. **Skyrmion stabilisation in 3D magnetic nanostructures.** *M.K. Zelent*[1], M. Moalic[1], B. Rana[1], K. Gusliyenko[2,3] and M. Krawczyk[1] *1. Faculty of Physics, Uniwersytet im Adama Mickiewicza w Poznaniu, Poznan, Poland; 2. Departamento de Polímeros y Materiales Avanzados: Física, Química y Tecnología, Universidad del País Vasco, San Sebastián, Spain; 3. The Basque Foundation for Science, IKERBASQUE, Bilbao, Spain*
View Digest Text

9:30

AG-04. **Magnetic skyrmions in synthetic ferri- and antiferromagnets.** ***(Invited)*** *A. Hoffmann*[1] *1. University of Illinois at Urbana-Champaign, Urbana, IL, United States*
View Digest Text

10:00

AG-05. **Higher-order skyrmions and antiskyrmions at room temperature.** ***(Invited)*** *S. Koraltan*[1], M. Hassan[2,3], A. Ullrich[2], F. Bruckner[1], R. Serha[1], K. Levchenko[1], G. Vavaro[3], N. Kiselev[4], M. Heigl[2], C. Abert[1], D. Suess[1] and M. Albrecht[2] *1. Faculty of Physics, University of Vienna, Wien, Austria; 2. Institute of Physics, University of Augsburg, Augsburg, Germany; 3. nM2-Lab, ISM-CNR, Roma, Italy; 4. Peter Grünberg Institute and Institute for Advanced Simulation, Forschungszentrum Jülich, Jülich, Germany*
View Digest Text

10:30

AG-07. **Ultrafast Skyrmion Motions and Detections.** ***(Invited)*** *J. Zang*[1] *1. Department of Physics, University of New Hampshire, Durham, NH, United States*
View Digest Text

11:00

AG-08. **Unveiling Orbital Pumping in Magnetic Heterostructures.** E. Santos[1], J.E. Abrão[1], J.B. Mendes[2] and *A. Azevedo*[1] *1. Universidade Federal de Pernambuco (Physics), Recife, Brazil; 2. Física, Universidade Federal de Viçosa, Viçosa, Brazil*
View Digest Text

EXHIBIT HALL

Session AP
MAGNETIZATION DYNAMICS AND MICROMAGNETICS I
(Poster Session)

Luis Aviles Felix, Co-Chair
Centro Atomico Bariloche, Bariloche, Argentina
Emily Darwin, Co-Chair
EMPA, Zurich, Switzerland

AP-01. **A Data-driven Extended Landau Theory Method For The Coercivity Analysis Of Magnetic Materials.** *C. Mitsumata*[1], A.L. Foggiatto[1] and M. Kotsugi[1] *1. Department of Materials Science, Tokyo University of Science, Tokyo, Japan*
View Digest Text

AP-02. **Modifying the trajectory of a skyrmionium using defects.** H. Vigo[1], S. Urcia Romero[2], *S.R. Navarro Vilca*[3] and A.P. Guimarães[4] *1. Universidad Privada del Norte, Trujillo, Peru; 2. University of Puerto Rico, Mayagüez, Puerto Rico; 3. Universidad Nacional Jorge Basadre Grohmann, Tacna, Peru; 4. Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, Brazil*
View Digest Text

AP-03. **Control of 3D Topological Spin Textrure in a Ferromagnetic Rectangular disk.** *M. Kang*[1], H. Han[2], H. Ok[1], G. Kim[1], S. Jeong[1], Y. Yu[3], S. Je[4], W. Chao[5], M. Im[5] and K. Lee[1] *1. Ulsan National Institute of Science and Technology (UNIST), Ulsan, The Republic of Korea; 2. Korea National University of Transportation, Chungju, The Republic of Korea; 3. Chungbuk National University, Cheongju, The Republic of Korea; 4. Chonnam National University, Gwangju, The Republic of Korea; 5. Center for X-ray Optics, Berkeley, CA, United States*
View Digest Text

AP-04. **Magnetization dynamics in $La_{0.7}Sr_{0.3}MnO_3/LaTiO_3(\delta)/SrTiO_3(001)$ thin films.** *K. Lal*[1], P. Ghising[1], B. Samantaray[1] and Z. Hossain[1] *1. Department of Physics, Indian Institute of Technology, Kanpur, India*
View Digest Text

AP-06. **Magnetic and elasto optic dynamic on Co/Pt multilayers.** *T. Fernandes*[1], L.H. de Andrade[1], M.D. Martins[2], J. Zarpellon[3], D.H. Mosca[3] and F.M. Matinaga[2] *1. SENAN, Centro de Desenvolvimento de Tecnologia Nuclear, Belo Horizonte, Brazil; 2. SEMAV, Centro de Desenvolvimento de Tecnologia Nuclear, Belo Horizonte, Brazil; 3. Departamento de Física, Universidade Federal do Paraná, Curitiba, Brazil*
View Digest Text

AP-09. **Interpretation in physics on magnetic domain structure dynamics in soft magnetic materials using feature extended energy landscape.** *R. Nagaoka*[1], K. Masuzawa[1], A.L. Foggiatto[1], T. Yamazaki[1], I. Obayashi[3], Y. Hiraoka[2], C. Mitsumata[1] and M. Kotsugi[1] *1. Department of Material Science, Tokyo University of Science, Katsushika-ku, Japan; 2. Kyoto University, Kyoto, Japan; 3. Okayama University, Okayama, Japan*
View Digest Text

AP-10. **Structural and magnetic properties of Fe/Ti superlattices.** *M.S. Yactayo Yaranga*[1], H.S. Tarazona[1], J. Ghanbaja[2], O. Copie[2], J. Rojas-Sanchez[2], C. Landauro Saenz[1,3] and J. Quispe-Marcatoma[1,3] *1. Facultad de Ciencias Físicas, Universidad Nacional Mayor de San Marcos, P.O.-Box 14–0149, Lima, Peru; 2. Institut Jean Lamour-U. Lorraine UMR7198 CNRS, Nancy, France; 3. Centro de Investigaciones Tecnológicas, Biomédicas y Medioambientales, Calle José Santos Chocano 199, Callao, Peru*
View Digest Text

AP-11. **Analysis of the high-frequency magnetization process through machine learning and topological data techniques.** *A.L. Foggiatto*[1], R. Nagaoka[1], M. Taniwaki[1], T. Yamazaki[1], T. Ogasawara[2], I. Obayashi[3], Y. Hiraoka[4], C. Mitsumata[1] and M. Kotsugi[1] *1. Tokyo University of Science, Katsushika, Japan; 2. National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan; 3. Okayama University, Okayama, Japan; 4. Kyoto University, Kyoto, Japan*
View Digest Text

AP-12. **Tailoring the exchange bias by AFM interface patterned control.** *G. de Oliveira Gurgel Rebouças*[1], A.L. Dantas[2] and A.S. Carriço[3] *1. Departamento de Ciências Exatas e Tecnologia da Informação, UFERSA, Mossoró, Brazil; 2. Departamento de Ciência e Tecnologia, UERN, Natal, Brazil; 3. Departamento de Física, UFRN, Natal, Brazil*
View Digest Text

AP-14. **Utilizing exchange bias in ferro/anti-ferromagnetic structure for obtaining a field-free Spin Hall Nano Oscillator (SHNO).** *M.S. Ban*[1] and S. Bhuktare[1] *1. Department of Electrical Engineering, Indian Institute of Technology Tirupati, Tirupati, India*
View Digest Text

EXHIBIT HALL

Session AQ
THIN FILMS, MULTI-LAYERED FILMS AND SUPERLATTICES (Poster Session)

Xiufeng Han, Chair
Institute of Physics, Chinese Academy of Sciences, Beijing, China

AQ-01. **Electrodeposition of Fe-based thin films for applications in nanodevices.** *B.G. Silva*[1], D. Gonzalez-Chavez[1], J. Gomes Filho[1] and R.L. Sommer[1] *1. Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, Brazil*
View Digest Text

AQ-02. **Consecutive field-assisted Ne ion irradiation of Co and Ni films with collapsed hard-magnetization axes.** *H.S. Acosta*[1], L. F. S. Azeredo[1], A. M. H. de Andrade[1] and J. Geshev[1] *1. Instituto de Física, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil*
View Digest Text

AQ-03. **Strain-induced oxygen vacancies and ferromagnetic order near the interface in $CaMnO_3$ thin films.** *J. Gajst*[1,2,3], J.P. Coronel[1], J. Santiso[4], F.J. Williams[2,3] and L. Steren[1,2] *1. Instituto de Nanociencia y Nanotecnología CAC—CNEA/CONICET, San Martín, Argentina; 2. Consejo Nacional de Investigaciones Científicas y Técnicas, Buenos Aires, Argentina; 3. INQUIMAE, Facultad de Ciencias Exactas y Naturales, Buenos Aires, Argentina; 4. Catalan Institute of Nanoscience and Nanotechnology (ICN2), CSIC and BIST, UAB, Bellaterra, Spain*
View Digest Text

AQ-04. **Effect of Cobalt doping on Resistive Switching Process in ZnO and TiO_2 Nanostructures for Flexible Non-Volatile Memories.** *A. Dussan Cuenca*[1], H.P. Quiroz[1], C.L. Terán[1] and J.A. Calderón[1,2] *1. Department of Physics, Universidad Nacional de Colombia, Bogotá, Colombia; 2. Engineering and Basic Science Faculty, Universidad Central, Bogotá, Colombia*
View Digest Text

AQ-05. **Withdrawn**

AQ-06. **H^+ and He^+ irradiation induce selective oxygen diffusion for oxide/metal/oxide interfaces heterostructures fabrication.** M. Mery[1], I. Stankovic[2], C. Gonzalez[1], J. Nunez[3], J. Valdes[1], M. Aguirre[4,3] and *C. Garcia*[1,5] *1. Department of Physics, UTFSM - Universidad Tecnica Federico Santa Maria, Valparaiso, Chile; 2. Center for Solid State Physics and New Materials, Institute of Physics Belgrade, University of Belgrade, Belgrade, Serbia; 3. Fisica de la Materia Condensada, Universidad de Zaragoza, Zaragoza, Spain; 4. INMA-Instituto de Nanociencia y Materiales de Aragon-CSIC, Zaragoza, Spain; 5. CCTVal - Centro Cientifico y Tecnologico de Valparaiso, Valparaiso, Chile*
View Digest Text

AQ-07. **The Interplay of Orbital Magnetic Moments in Tuning Perpendicular Magnetic Anisotropy in TmIG Thin Films.** *C.C. Soares*[1,2,3], D. Chaves[2], T.J. Mori[2], T. Rocha[2], J. Brandao[2], F. Béron[3], J.C. Cezar[2], J.S. Moodera[4] and G. Vilela[1] *1. Física de Materiais, Universidade de Pernambuco, Campinas, Brazil; 2. Laboratório Nacional de Luz Síncrotron, Centro Nacional de Pesquisa em Energia e Materiais, Campinas, Brazil; 3. Instituto de Física Gleb Wataghin, Universidade Estadual de Campinas, Campinas, Brazil; 4. Plasma Science and Fusion Center and FBML, Massachusetts Institute of Technology, Cambridge, MA, United States*
View Digest Text

AQ-08. **Structural characterization and local surface electronic response of sputtered growth Bi_2Se_3 on MgO (100) substrate.** G.R. Junior[1], A. Vieira[1], R. Magalhães-Paniago[2], L. Moura[1], R.O. da Cunha[1] and *J.B. Mendes*[1] *1. Department of Physics, Universidade Federal de Viçosa, Viçosa, Brazil; 2. Department of Physics, Universidade Federal de Minas Gerais, Belo Horizonte, Brazil*
View Digest Text

AQ-09. **Magnetometry of Buried Co-based Nanolayers by Hard X-ray Photoelectron Spectroscopy.** *A. Hloskovsky*[1], C. Schlueter[1] and G. Fecher[2] *1. Photon Science, DESY, Hamburg, Germany; 2. Max Planck Institute for Chemical Physics of Solids, Dresden, Germany*
View Digest Text

AQ-10. **Structure and magnetic properties of Co_2FeGa Heusler alloy films grown by sputtering deposition.** *B.D. dos Santos*[1], A.C. Krohling[1] and W.A. Macedo[1] *1. Centro de Desenvolvimento da Tecnologia Nuclear, Belo Horizonte, Brazil*
View Digest Text

AQ-11. **Thin Films of Heusler alloy – Ni2(MnCu)(GaAl): estructural and magnetic properties, a spin glass behavior-like appears.** *R. Duarte de Melo*[1], V.M. T.S. Barthem[1] and A. Gomes[1] *1. Instituto de Física, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil*
View Digest Text

AQ-13. **Surface Spin Wave Resonance in NiFe/Zr Multilayers.** *M. Pessoa*[1], F. Pelegrini[2], A. Biondo[3], V. Nascimento[3] and E.M. Saitovitch[4] *1. Departamento de Ciências Naturais, Universidade Federal do Espirito Santo, São Mateus, Brazil; 2. Instituto de Física, Universidade Federal de Goiás, Goiânia, Brazil; 3. Departamento de Física, Universidade Federal do Espírito Santo, Vitória, Brazil; 4. Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, Brazil*
View Digest Text

AQ-14. **Simulations of Experimentally Detected Ambient Skyrmions in Symmetric Synthetic Antiferromagnetic Multilayers.** *L.S. Palhares*[1,2], T.M. Batistel[1,2], J. Brandao[2] and F. Béron[1] *1. Instituto de Física Gleb Wataghin, Universidade Estadual de Campinas, Campinas, Brazil; 2. Laboratório Nacional de Luz Síncrotron, Centro Nacional de Pesquisa em Energia e Materiais, Campinas, Brazil*
View Digest Text

AQ-15. **High frequency response of magnetically coupled Co/Cu/CoFeB trilayers.** Z. Wei[1], *D. Navas*[1], S.A. Bunyaev[2], M. Abellan[3], C. Garcia[3,4], G.N. Kakazei[2] and M. Vázquez[1] *1. Instituto de Ciencia de Materiales de Madrid (ICMM-CSIC), Madrid, Spain; 2. IFIMUP/Department of Physics and Astronomy, University of Porto, Porto, Portugal; 3. Centro Científico Tecnológico de Valparaíso - CCTVal, Universidad Técnica Federico Santa María, Valparaíso, Chile; 4. Departamento de Física, Universidad Técnica Federico Santa María, Valparaíso, Chile*
View Digest Text

AQ-16. **Correlation between strains, oxygen vacancies and magnetotransport properties of $CaMnO_3$ thin films.** A. Lopez Pedroso[1,2], J. Gajst[1,2,6], S. Carreira[3], J. Santiso[4], M. Aguirre[5], J. Briatico[3], F.J. Williams[2,6] and *L. Steren*[1,2] *1. Instituto de Nanociencia y Nanotecnologia CNEA/ CONICET- Constituyentes, San Martin, Argentina; 2. Consejo Nacional de Investigaciones Cientificas y Tecnicas, San Martin, Argentina; 3. Laboratoire Albert Fert, Palaiseau, France; 4. Catalan Institute of Nanoscience and Nanotechnology (ICN2), CSIC and the Barcelona Institute of Science and Technology (BIST), Campus de la UAB, Bellaterra, Spain; 5. Condensed Matter Physics, INMA-Instituto de Nanociencia y Materiales de Aragón, Zaragoza, Spain; 6. Chemistry, Inquimae, Buenos Aires, Argentina*
View Digest Text

Session AR
TRANSFORMERS AND WIRELESS POWER TRANSFER, MAGNETIC BEARINGS AND LEVITATION (Poster Session)

Hamed Hamzehbahmani, Chair
Durham University, Durham, United Kingdom

AR-01. **Magnetic Ageing of Electrical Steel: Precipitates Impact on Magnetic Losses.** M. Mota[1,2], W. França[1], L.F. Costa[1], J. Dias[1,3], L. Favarato[3], T. Barros[1], J.R. Oliveira Junior[3], L.M. Meireles[1] and *D.L. Rocco*[1] *1. Departamento de Formação Geral, Centro Federal de Educação Tecnológica de Minas Gerais, Timóteo, Brazil; 2. SENAI/MG, Ipatinga, Brazil; 3. Aperam South America, Timóteo, Brazil*
View Digest Text

AR-02. **An alternative heat treatment recovery of the magnetic properties of a non-grain oriented Fe-Si steel after cutting.** A.C. Junior[1], J.C. Ferreira[1], D.L. Rocco[1] and *L.M. Meireles*[1] *1. POSMAT, Centro Federal de Educacao Tecnologica de Minas Gerais, Timoteo, Brazil*
View Digest Text

AR-03. **Influence of leakage inductance of a transformer operating in a DC resistance welding machine on welding conditions.** *Z. Mikno*[2] and M. Stepien[1] *1. Department of Power Electronics, Electrical Drives and Robotics, Silesian University of Technology, Gliwice, Poland; 2. Lukasiewicz Research Network – Upper Silesian Institute of Technology, Gliwice, Poland*
View Digest Text

AR-04. **An Ultra-thin Self-Resonant Coupler with Nanocrystalline Flake Ribbons for Wireless Power Transfer System.** *J. Xiang*[1], C. Jiang[1], T. Ma[1], Y. Wang[1] and Y. Fan[1] *1. Department of Electrical Engineering, City University of Hong Kong, Kowloon, Hong Kong*
View Digest Text

AR-05. **Configurable Nanocrystalline Flake Ribbon Transformer with Variable Leakage Inductance.** *R. Sheng*[1], C. Jiang[1], L. Mo[1], C. Chen[1] and Y. Wang[1] *1. Department of Electrical Engineering, City University of Hong Kong, Kowloon, Hong Kong*
View Digest Text

AR-06. **Design Method of Transformer in LLC Resonant Converters considering Electro-magnetic and Thermal Characteristics.** *J. Ryu*[1], S. Cho[1], D. Lee[1], Y. Shin[1], G. Koo[1], J. Park[1], B. Kim[1] and H. Seol[1] *1. Korea Automotive Technology Institute, Cheonan-Si, The Republic of Korea*
View Digest Text

AR-10. **Multi-source vibration suppression of magnetic bearing supporting rotor system based on phase-shift Least Mean Square adaptive filter.** *P. Xiao*[1], K. Liu[1] and J. Wei[1] *1. Sun Yat-Sen University, ShenZhen, China*
View Digest Text

AR-12. **K-best-Sphere-Decoding-Based Model Predictive Control for Dual Three-Phase SPMSMs.** Z. Zhang[1], J. Chen[1], R. Han[2], *Y. Wu*[1], Y. Gong[1] and S. Chang[1] *1. Tianjin University, Tianjin, China; 2. Tianjin Navigation Instruments Research Institute, Tianjin, China*
View Digest Text

AR-13. **Torque-Ripple-Mitigated Model-Free Predictive Current Control with Extended Control Set for PMSMs.** Z. Zhu[1], X. Wei[1], Z. Zhang[1], R. Han[2], *Y. Wu*[1], Y. Gong[1] and S. Chang[1] *1. Tianjin University, Tianjin, China; 2. Tianjin Navigation Instruments Research Institute, Tianjin, China*
View Digest Text

AR-14. **Dc-link Utilization Enhanced Implicit Model Predictive Control for Dual Three-Phase PMSMs.** *Y. Wu*[1], Z. Zhang[1], R. Han[2], Y. Gong[1] and S. Chang[1] *1. Tianjin University, Tianjin, China; 2. Tianjin Navigation Instruments Research Institute, Tianjin, China*
View Digest Text

AR-15. **Modulation-Incorporated Model Predictive Control Using Symmetric Single Pulse for Dual Three-Phase PMSMs.** B. Deng[1], R. Gu[1], Y. Gong[1] and *Y. Wu*[1] *1. Tianjin University, Tianjin, China*
View Digest Text

AR-16. **Drag Force Analysis of Superconducting EDS Type Hyperloop System According to Changes in Tube Material Properties.** *S. Kim*[1], J. Lee[1], C. Kim[2] and H. Lee[2] *1. Hanyang University, Seoul, The Republic of Korea; 2. Department of Railway Vehicle & Operation System Engineering, Korea National University of Transportation - Uiwang Campus, Uiwang-si, The Republic of Korea*
View Digest Text

EXHIBIT HALL

Session AS
INTERDISCIPLINARY TOPICS IN MAGNETICS I (Poster Session)

Alisson Krohling, Chair
Nuclear Technology Development Center, Belo Horizonte, Brazil

AS-01. **High-frequency electric Dipole-Dipole interaction contribution for the magnetoelectric effect in the multiferroic composite PZT/NFO.** *A.J. Gualdi*[1] and F.L. Zabotto[1] *1. Department of Physics, Federal University of São Carlos, São Carlos, Brazil*
View Digest Text

AS-02. **Synthesis and Characterization of $BiFeO_3$ Nanoparticles Obtained by the Coprecipitation Method.** J. Duque[1], *B. Santos*[1], G. Cunha[1], L. Fernandes[1] and P. Oliveira[1] *1. Federal University of Sergipe, Itabaiana, Brazil*
View Digest Text

AS-03. **Temperature dependence of the magnetic hyperfine field and electric field gradient in $HfNiO_3$ ferroic perovskite.** *L.F. Pereira*[1], T. da Silva Nascimento Sales[1], L. Scalise[1], A. Burimova[1], K.S. Souza[1], B.S. Corrêa[1], A. A. Miranda[1], I.S. Ribeiro-Junior[1], M. Ozório[1], W.L. Ferreira[1], F.A. Genezini[1], R.N. Saxena[1] and A.W. Carbonari[1] *1. Centro do Reator de Pesquisas, Instituto de Pesquisas Energéticas e Nucleares, São Paulo, Brazil*
View Digest Text

AS-05. **Transition metal spin and color center in β-Ga_2O_3.** M. Jansson[1], J. Stehr[1], S. Pearton[2], J. McCloy[3], J. Jesenovec[3], B. Dutton[3], M. McCluskey[3], W.M. Chen[1] and *I.A. Buyanova*[1] *1. Linköping University, Linköping, Sweden; 2. University of Florida, Gainesville, FL, United States; 3. Washington State University, Seattle, WA, United States*
View Digest Text

AS-06. **Magnetic Resonance Imaging Contrast Enhancement Induced by Hydrophobic Iron Oxide Nanoparticles in Oil-in-Water Emulsion.** *A.d. da Cruz*[1], C.L. Rodrigues[1], M.G. Martins[2], A.M. Souza[1], M. Nascimento[3], I.S. Oliveira[1] and F. Garcia[1] *1. Centro Brasileiro de Pesquisas Fisicas, São Gonçalo, Brazil; 2. Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil; 3. Centro de Pesquisas e Desenvolvimento Leopoldo Américo Miguez de Mello, Rio de Janeiro, Brazil*
View Digest Text

AS-07. **Evaluation of Hydrogen-Induced Degradation of Steel Through Multispectral Analysis of Magnetic Barkhausen Noise.** *G. Psuj*[1], C. Camerini[2], M. Maciusowicz[1] and G. Pereira[2] *1. Faculty of Electrical Engineering, West Pomeranian University of Technology, Szczecin, Poland; 2. Laboratory of Non-Destructive Testing, Corrosion and Welding, Department of Metallurgical and Materials Engineering, University of Rio de Janeiro, Rio de Janeiro, Brazil*
View Digest Text

AS-08. **Itinerant SDW phases, contributions from the CrNb dilute alloys.** *P.E. de Souza*[1], L.M. Oliveira[2], F. Yokaichiya[4], P.C. de Camargo[3] and A.J. de Oliveira[3] *1. Institute of Physics, Universidade de Brasília, Brasília, Brazil; 2. Coleg. Ciências da Natureza, Universidade Federal do Vale do Sao Francisco, Petrolina, Brazil; 3. Dept. of Physics, Universidade Federal de São Carlos, Sao Carlos, Brazil; 4. Dept. of Physics, Universidade Federal do Paraná, Curitiba, Brazil*
View Digest Text

AS-11. **Impact of annealing on the band structure of (Ga,Mn)(P,As) nanofilms.** *N. Tataryn*[1], S. Mamykin[1], L. Riney[2], X. Liu[2], B.A. Assaf[2], V. Romanyuk[1], O. Kondratenko[1], O. Kolomys[1], O. Yastrubchak[1] and J. Furdyna[2] *1. V. E. Lashkaryov Institute of Semiconductor Physics, National Academy of Sciences of Ukraine, Kiev, Ukraine; 2. Department of Physics and Astronomy, University of Notre Dame, Notre Dame, IN, United States*
View Digest Text

AS-12. **Modeling of the micro-focused Brillouin light scattering signal.** *O. Wojewoda*[1], M. Hrton[1] and M. Urbánek[1] *1. CEITEC, Brno University of Technology, Brno, Czechia*
View Digest Text

AS-13. **Bright Envelope Solitons in the Double Negative Media Based on Thin Films of Nonlinear Ferromagnetic Semiconductor.** *S.V. Grishin*[1], A.V. Bogomolova[1] and S. Nikitov[2,1] *1. Saratov State University, Saratov, Russian Federation; 2. Kotelnikov Institute of Radioengineering and Electronics of Russian Academy of Science, Moscow, Russian Federation*
View Digest Text

AS-16. **Super-Resolution in Computed Tomography Images: An Integrated Approach of Artificial Intelligence and LapSRN Techniques.** *A.M. Guimarães*[1] and G.A. Pizo[1] *1. Instituto de Engenharia Eletrônica, Universidade de Brasília, Brasília, Brazil*
View Digest Text

OCEANIA IV & V

Session BA
MAGNETICS FOR TOMORROW'S MEDICAL TECHNOLOGIES

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

2:00

BA-01. **Biomimetic magnetic nanocarriers for cancer therapy.** ***(Invited)*** J.V. Rocha[1], R. Krause[1], C.E. Cardoso[1], N.C. Oliveira[1], L.R. Sousa[1], E.M. Lima[1], M.C. Valadares[1], M.C. Xavier[1], S. Mendanha[1] and *A.F. Bakuzis*[1] *1. Federal University of Goiás, Goiânia, Brazil*
View Digest Text

2:30

BA-02. **Toward Non-Invasive Deep Brain Stimulation Using Externally Applied Electromagnetic Fields.** ***(Invited)*** *M. Sekino*[1], A. Iino[1], M. Fushimi[1], Z. Xin[1], K. Nakagawa[1] and K. Inoue[1] *1. The University of Tokyo, Tokyo, Japan*
View Digest Text

3:00

BA-03. **Enhanced Rapid Diagnostic Tests: Improved Sensitivity and Quantification with Magnetic Nanoparticles and Sensors.** ***(Invited)*** *M. Rivas*[1], M. Salvador[1], J.L. Marques[1], L.B. Fraile[1], V. Pilati[1] and J.C. Martinez-Garcia[1]
1. Department of Physics, Universidad de Oviedo, Gijón, Spain
View Digest Text

3:30

BA-04. **Micromagnetic Neural Stimulation and Spintronic Neural Sensing.** ***(Invited)*** R. Saha[1], D. Tonini[1], M. Hopper[1], A. Goyal[2], J. Yuen[2], Y. Oh[2], Z. Sanger[3], S. Faramarzi[3], M. Shiao[4], D. Helden[5], R. Bloom[1], O. Benally[1], K. Wu[1], S. Keirstead[4], T. Netoff[3], W. Low[6], J. Osborn[5], K. Bennet[2], K. Lee[2], H. Shin[2] and *J. Wang*[1] *1. Department of Electrical and Computer Engineering, University of Minnesota, Minneapolis, MN, United States; 2. Department of Neurologic Surgery, Mayo Clinic, Rochester, MN, United States; 3. Department of Biomedical Engineering, University of Minnesota, Minneapolis, MN, United States; 4. Stem Cell Institute, University of Minnesota, Minneapolis, MN, United States; 5. Department of Surgery, University of Minnesota, Minneapolis, MN, United States; 6. Department of Neurosurgery, University of Minnesota, Minneapolis, MN, United States*
View Digest Text

4:00

BA-05. **Focal activation of the cochlea with magnetic stimulation from microcoils.** ***(Invited)*** *S. Fried*[1,2] and J. Lee[1]
1. Neurosurgery, Massachusetts General Hospital, Boston, MA, United States; 2. Boston VA Healthcare System, Boston, MA, United States
View Digest Text

4:30

BA-06. **Magnetic Hyperthermia Optimization.** ***(Invited)*** H. Chen[1], D. Billington[2], E. Riordan[2], J. Blomgren[3], S.R. Giblin[2], C. Johansson[3] and *S. Majetich*[1] *1. Department of Physics, Carnegie Mellon University, Pittsburgh, PA, United States; 2. Department of Physics, Cardiff University, Cardiff, United Kingdom; 3. RISE Research Institutes of Sweden, Göteborg, Sweden*
View Digest Text

Session BB
MAGNONICS I: FUNDAMENTAL PROPERTIES

David Cortés-Ortuño, Chair
Universidad Técnica Federico Santa María, Valparaíso, Chile

2:00

BB-01. **Electric analog of magnon excitations and electric polarization transport in ferroelectric materials.** ***(Invited)***
P. Tang[1] *1. Tohoku University, Sendai, Japan*
View Digest Text

2:30

BB-02. **Transient Response and Relaxation of Spin Waves Measured in a Rectangular $Ni_{80}Fe_{20}$ Microstrip.** *S. Pile*[1], S. Wintz[2,3], K. Lenz[4], R. Narkowicz[4], A. Ney[1], J. Lindner[4], J. Förster[2], S. Mayr[5,6] and M. Weigand[3] *1. Johannes Kepler University Linz, Linz, Austria; 2. Max Planck Institute for Intelligent Systems, Stuttgart, Germany; 3. Helmholtz-Zentrum Berlin für Materialien und Energie, Berlin, Germany; 4. Helmholtz-Zentrum Dresden-Rossendorf, Institute of Ion Beam Physics and Materials Research, Dresden, Germany; 5. Paul Scherrer Institut, Villigen PSI, Switzerland; 6. Laboratory for Mesoscopic Systems, Department of Materials, Zurich, Switzerland*
View Digest Text

2:45

BB-03. **Increase of Spin-Wave Damping with Wavenumber in YIG/GGG at Millikelvin Temperatures.** *D. Schmoll*[1,2], R. Serha[1,2], R.V. Verba[3], K. Levchenko[1], S. Knauer[1] and A. Chumak[1] *1. Faculty of Physics, University of Vienna, Vienna, Austria; 2. Vienna Doctoral School in Physics, University of Vienna, Vienna, Austria; 3. Institute of Magnetism, Kyiv, Ukraine*
View Digest Text

3:00

BB-04. **Local Temperature Control of Magnon Frequency and Direction of Supercurrents in a Magnon Bose–Einstein Condensate.** *A.A. Serga*[1], M.R. Schweizer[1], F. Kühn[1], V.S. L'vov[2,3], A. Pomyalov[3], G. von Freymann[1,4] and B. Hillebrands[1] *1. Department of Physics, RPTU Kaiserslautern-Landau, Kaiserslautern, Germany; 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. Fraunhofer Institute for Industrial Mathematics ITWM, Kaiserslautern, Germany*
View Digest Text

3:15

BB-05. **Excitation Of High-Frequency Short-Wavelength Spin Waves Via High Harmonics Of Magnonic Cavity Mode.** *P. Gruszecki*[1], N. Kumar[2], M. Golebiewski[1], J.W. Klos[1] and M. Krawczyk[1] *1. Faculty of Physics, Uniwersytet im Adama Mickiewicza w Poznaniu, Poznan, Poland; 2. Electronics and Communication Engineering Department, National Institute of Technology Calicut, Calicut, India*
View Digest Text

3:30

BB-07. **Nonlinear Effects in Inelastic Scattering of Spin-Wave Beams on Localized Modes for Controlling Propagation of Scattered Beams.** *K. Sobucki*[1], J. Kharlan[1,2], R.V. Verba[2], I. Lyubchanskii[1], M. Krawczyk[1] and P. Gruszecki[1] *1. ISIK, Faculty of Physics, Adam Mickiewicz University, Poznan, Poland; 2. Institute of Magnetism of NAS of Ukraine and MES of Ukraine, Kyiv, Ukraine*
View Digest Text

3:45

BB-08. **Application of Mie-enhanced BLS to study parametric pumping of spin-waves.** *O. Wojewoda*[1], D. Pavelka[1], M. Hrton[1], J. Klima[2], J. Krcma[2], J. Holobradek[1], T. Sikola[2,1] and M. Urbánek[1] *1. CEITEC, Brno University of Technology, Brno, Czechia; 2. Institute of Physical Engineering, Brno University of Technology, Brno, Czechia*
View Digest Text

4:15

BB-10. **Brillouin light scattering study of nonreciprocal spin dynamics in magnetic chiral tubes.** *M. Xu*[1], A.J. Deenen[1], H. Guo[1] and D. Grundler[1,2] *1. Institute of Materials (IMX), Ecole Polytechnique Fédérale de Lausanne (EPFL), Saint-Sulpice, Switzerland; 2. Institute of Electrical and Micro Engineering (IEM), EPFL, Lausanne, Switzerland*
View Digest Text

4:30

BB-11. **Solutions to the Landau-Lifshitz-Gilbert equation in the frequency space: Discretization schemes for the dynamic-matrix approach.** *D. Gonzalez-Chavez*[1], G.P. Zamudio[1] and R.L. Sommer[1] *1. Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, Brazil*
View Digest Text

Session BC
PATTERNED FILMS, NANOCOMPOSITES, SELF-ASSEMBLY

Julian Geshev, Chair
Institute of Physics, UFRGS, Porto Alegre, Brazil

2:00

BC-01. **Role of Magnetic Anisotropy in Applications of Magnetic Nanoparticles.** ***(Invited)*** *C. Dennis*[1] *1. NIST, Gaithersburg, MD, United States*
View Digest Text

2:30

BC-03. **Vortex-state in Iron Nanodisks: Formation and Response in Water Solutions.** *I. Solozabal Azcarate*[1], R. Zurbano[1], C. Redondo[1], A. Benedicto[4] and R. Morales[3,2] *1. Department of Physical-Chemistry, University of the Basque Country, Leioa, Spain; 2. IKERBASQUE Basque Foundation for Science, Bilbao, Spain; 3. University of the Basque Country & BC Materials, Leioa, Spain; 4. Department of Cell Biology and Histology, University of the Basque Country, Leioa, Spain*
View Digest Text

2:45

BC-04. **Magnetophoretic-Based Bacterial Cell Localization.** B. Gungordu[1], N. Gunduz Akdogan[2,3] and *O. Akdogan*[1,2] *1. Faculty of Engineering and Natural Sciences, Bahcesehir University, Istanbul, Turkey; 2. NANOTerial Technology Corporation, Istanbul, Turkey; 3. Faculty of Engineering, Piri Reis University, Istanbul, Turkey*
View Digest Text

3:00

BC-05. **Synthesis and Characterization of CeO_2/g-C_3N_4 Nanocomposites: Structural, Morphological, Optical, and Magnetic Properties Investigation.** *R. Cardoso de Oliveira*[1], E. Chaves Pereira[2] and A.J. de Oliveira[1] *1. Department of Physics, Federal University of São Carlos, São Carlos, Brazil; 2. Department of Chemistry, Federal University of São Carlos, São Carlos, Brazil*
View Digest Text

3:15

BC-06. **Simple Tuning of the Magnetic Properties of CoNi Nanoparticles During Generation.** P. Ternero[1,2], M. Sedrpooshan[1,2], D. Wahlqvist[3,2], B.O. Meuller[1,2], M. Ek[3,2], J.M. Hübner[3], R. Westerström[1,2] and *M.E. Messing*[1,2]
1. Department of Physics, Lund University, Lund, Sweden; 2. NanoLund, Lund, Sweden; 3. Chemistry, Lund University, Lund, Sweden
View Digest Text

3:30

BC-07. **Magnetic Nanowires: Cylindrical Geometry, Remagnetization and Sensor Applications.** ***(Invited)***
M. Vázquez[1] *1. ICMM/CSIC, Madrid, Spain*
View Digest Text

4:00

BC-08. **Magneto-Structural Properties of Co_2FeIn Heusler Nanowires for Spintronics Applications.** *A.I. Jimenez*[1], J. Garcia[1], V. Vega[1], Y. Alvarez[1], A.S. Gonzalez[1], E.D. Barriga-Castro[2], C. Luna[3] and V.M. Prida[1]
1. Department of Physics, University of Oviedo, Oviedo, Spain; 2. Centro de Investigaciónn de Química aplicada, Saltillo, Mexico; 3. Department of Physics, Universidad Autónoma de Nuevo León, San Nicolás de los Garza, Mexico
View Digest Text

4:15

BC-09. **Cobalt-iron nitride nano-flake powders: synthesis, analysis morphological, structural, magnetic and catalytic activity.** *G. Gubert*[1], R. Gonçalves[1], R. Cardoso de Oliveira[2], G. Zepon[3], A.J. de Oliveira[2] and E. Chaves Pereira[1]
1. Department of Chemistry, Universidade Federal de São Carlos, São Carlos, Brazil; 2. Department of Physics, Federal University of São Carlos, São Carlos, Brazil; 3. Department of Materials Science and Engineering, Federal University of São Carlos, São Carlos, Brazil
View Digest Text

4:30

BC-10. **Magnon-drag thermopower and active Peltier cooling in 3D ferromagnetic nanowire networks.** *T. da Câmara Santa Clara Gomes*[1], N. Machal[1], F. Abreu Araujo[1] and L. Piraux[1]
1. Institute of Condensed Matter and Nanosciences, Université Catholique de Louvain, Louvain-la-Neuve, Belgium
View Digest Text

Session BD
ULTRAFAST DYNAMICS AND ALL-OPTICAL SWITCHING

Alex Jenkins, Chair
International Iberian Nanotechnology Laboratory, Braga, Portugal

2:00

BD-01. **Towards on-chip spintronic-photonic integration.** ***(Invited)*** *B. Koopmans*[1], P. Li[1], H. Pezeshki[1], E. Demirer[1], G. Simons[1], Y. Jiao[2], J. van der Tol[2] and R. Lavrijsen[1] *1. Department of Applied Physics, Eindhoven University of Technology, Eindhoven, Netherlands; 2. Department of Electrical Engineering and Eindhoven Hendrik Casimir Institute, Eindhoven University of Technology, Eindhoven, Netherlands*
View Digest Text

2:30

BD-02. **Optical control of the magnetization emerging from the magnetic part of the optical field in the Landau-Lifshitz-Gilbert equation.** *B.J. Assouline*[1^] and A. Capua[1]
1. Department of Electrical Engineering and Applied Physics, The Hebrew University of Jerusalem, Jerusalem, Israel
View Digest Text

2:45

BD-03. **Picosecond Spin-Orbit Torque Switching Dynamics in a Ferromagnet.** *A. Pattabi*[1,2], D. Polley[2,3,4], A. Rastogi[2], K. Jhuria[3,5], E. Díaz[5], H. Singh[2], A. Lemaitre[6], M. Hehn[5], J. Gorchon[5] and J. Bokor[2,3] *1. Department of Engineering, University of San Francisco, San Francisco, CA, United States; 2. Department of Electrical Engineering and Computer Sciences, University of California, Berkeley, Berkeley, CA, United States; 3. Lawrence Berkeley National Laboratory, Berkeley, CA, United States; 4. SRM Institute of Science and Tenchnology, Chennai, India; 5. CNRS, IJL, Université de Lorraine, Nancy, France; 6. Centre de Nanosciences et de Nanotechnologies, Université Paris-Saclay, Palaiseau, France*
View Digest Text

3:00

BD-04. **All-optical control and ultrafast spin dynamics in van der Waals magnets.** ***(Invited)*** *M. Dabrowski*[1] *1. Department of Physics and Astronomy, University of Exeter, Exeter, United Kingdom*
View Digest Text

3:30

BD-05. **High frequency dynamics in half-metallic compensated ferrimagnetic Mn_2Ru_xGa thin films.** *K.E. Siewierska*[1], G. Atcheson[2,3], J. O'Brien[3], M. Kusch[1], K. Ruotsalainen[1], C. Liu[1,4], R. Decker[1], P.S. Stamenov[3], K. Rode[3] and A. Föhlisch[1,4] *1. PS-ISRR, Helmholtz Zentrum Berlin für Materialien und Energie, Berlin, Germany; 2. CEA-SPINTEC, Grenoble, France; 3. Department of Physics, Trinity College Dublin, Dublin, Ireland; 4. Institute of Physics and Astronomy, Universität Potsdam, Potsdam, Germany*
View Digest Text

3:45

BD-07. **Emission of Coherent THz Magnons in an Antiferromagnetic Insulator Triggered by Ultrafast Spin-Phonon Interactions.** ***(Invited)*** E. Rongione[1,2,3] and *M. Mičica*[2] *1. Laboratoire Albert Fert, CNRS, Thales, Université Paris-Saclay, Palaiseau, France; 2. Laboratoire de Physique de l'Ecole Normale Supérieure, ENS, Université PSL, CNRS, Sorbonne Université, Université Paris Cité, Paris, France; 3. Catalan Institute of Nanoscience and Nanotechnology (ICN2), CSIC, BIST, Barcelona, Spain*
View Digest Text

4:15

BD-08. **Manipulation of Correlated Weyl Fermions in the Chiral Antiferromagnet Mn_3Sn.** ***(Invited)*** *S. Nakastsuji*[1,2,3] *1. Department of Physics, University of Tokyo, Tokyo, Japan; 2. Department of Physics and Astronomy, Johns Hopkins University, Baltimore, MD, United States; 3. Canadian Institute for Advanced Research, Toronto, ON, Canada*
View Digest Text

EUROPA I

Session BE
NUMERICAL, SEMI-ANALYTICAL AND ANALYTICAL ANALYSIS METHODS I

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

2:00

BE-01. **Frequency Spectrum Analysis of Magnetic Field Strength for Effective Condition Monitoring of Magnetic Cores.** *H. Hamzehbahmani*[1] *1. Department of Engineering, Durham University, Durham, United Kingdom*
View Digest Text

2:15

BE-04. **Computational Speed Improvement of Reluctance Network Analysis Combined with Play Model.** *Y. Hane*[1] and K. Sugahara[2] *1. Department of Electrical Engineering, Tohoku University, Sendai, Japan; 2. Kindai University, Higashiosaka, Japan*
View Digest Text

2:30

BE-06. **Reluctance Network Model of V-Type IPMSM for Accurate and Practical Design.** *Y. Hane*[1] and K. Nakamura[1] *1. Department of Electrical Engineering, Tohoku University, Sendai, Japan*
View Digest Text

2:45

BE-05. **Load Operations Analysis of a Hybrid Excited Flux Switching Vernier Alternator for Renewable Energy Conversion.** H.N. Nasser[1], V. Dyck[1], E. Lemains[1], *Y. Amara*[1], F. Chabour[1] and J.J. Paulides[2] *1. Université Le Havre Normandie, Le Havre, France; 2. AE Group (Advanced Electromagnetics), Eindhoven, Netherlands*
View Digest Text

3:00

BE-07. **Graphical Root Cause Analysis of Magnetically Induced Vibrations in Synchronous Machines.** *A. de Barros*[1], A. Ebrahimi[2], B. Schwarz[3] and B. Ponick[1] *1. Institute for Drive Systems and Power Electronics, Leibniz University Hannover, Hannover, Germany; 2. Institute of Electrical Drives, Power Electronics and Devices, University Bremen, Bremen, Germany; 3. Voith Hydro Holding GmbH & Co. KG, Heidenheim, Germany*
View Digest Text

3:15

BE-08. **A Quasi-3-D Finite Element Modeling of An Axial Flux Magnetic Resonant Motor.** *J. Besong*[1] *1. Institute for Multidisciplinary Sciences, Yokohama National University, Yokohama, Japan*
View Digest Text

3:30

BE-09. **Advancing Torque Calculation in Axial-Flux Machines: An Easy-to-Implement Approach for Finite Element Analysis.** *J.M. Silveyra*[1,2] and J.M. Conde Garrido[1,2] *1. University of Buenos Aires, Buenos Aires, Argentina; 2. CONICET, Buenos Aires, Argentina*
View Digest Text

3:45

BE-10. **Fast Calculation of High Frequency Air Gap Flux Density Harmonics by Frozen Permeability Method in Electrical Machines.** *S. Ni*[1], J. Le Besnerais[2], G. Bauw[1], R. Romary[1] and B. Cassoret[1] *1. LSEE, Artois University, Lille, France; 2. Eomys Engineering, Villeneuve-d'Ascq, France*
View Digest Text

4:00

BE-11. **Interlaminar faults in a GOFeSi laminated magnetic core: measurements and simulations.** *B. Ducharne*[1,2,3], H. Hamzehbahmani[4] and Y. Gao[5] *1. Institut National des Sciences Appliquees de Lyon, Villeurbanne, France; 2. Tohoku University, Sendai, Japan; 3. ELyTMaX, CNRS, Sendai, Japan; 4. Durham University, Durham, United Kingdom; 5. Oita University, Oita, Japan*
View Digest Text

4:15

BE-12. **A Noval Winding Design for EV Traction Electric Motors: Hybrid Hairpin Winding Layout Containing Both Copper and Aluminum Windings.** *B. Guruwatta Vidanalage*[1], Z. Li[1], A. Lombardi[2] and N. Kar[1] *1. Department of Electrical and Computer Engineering, University of Windsor, Windsor, ON, Canada; 2. Nemak, Windsor, ON, Canada*
View Digest Text

EUROPA II

Session BF
MAGNETOELECTRIC MATERIALS AND PHENOMENA

Thiago Mori, Chair
Brazilian Center for Research in Energy and Materials, Campinas, Brazil

2:00

BF-01. **Low Noise Inverse Magnetoelectric Magnetic Field Sensor.** ***(Invited)*** L. Thormählen[1], P. Hayes[1], E. Elzenheimer[1], E. Spetzler[1], J. McCord[1], G. Schmidt[1], M. Höft[1], D. Meyners[1] and *E. Quandt*[1] *1. Christian-Albrechts-Universität, Kiel, Germany*
View Digest Text

2:30

BF-02. **Exploring the magnetoelectric functionality in PMN-PT/FSMA multiferroic heterostructure for flexible MEMS applications.** *D. Arora*[1] and D. Kaur[1] *1. Department of Physics, Indian Institute of Technology Roorkee, Roorkee, India*
View Digest Text

2:45

BF-03. **Study of the Magnetoelectric Effect in PVDF/Ni Composites.** *F. Luciano*[1,2*], A. De Coster[1], E. Giorgione[3], D. Wysocka[2], S. De Gendt[1,2], F. Ciubotaru[2] and C. Adelmann[2] *1. KU Leuven, Leuven, Belgium; 2. Imec, Leuven, Belgium; 3. Politecnico di Torino, Turin, Italy*
View Digest Text

3:00

BF-04. **Electric Field Control of Magnetization in FeGa microstructures on PMN-PT.** G. Pradhan[1,2], F. Celegato[1], A. Magni[1], M. Coisson[1], G. Barrera[1], P. Rizzi[2] and *P. Tiberto*[1] *1. INRIM, Torino, Italy; 2. Department of Chemistry, Università di Torino, Torino, Italy*
View Digest Text

3:15

BF-05. **Magnetic properties induced by epitaxial strain in $BaTi_{1/2}Mn_{1/2}O_3$ thin films.** R.P. Amaral[1,2], F.R. Estrada[1], J.C. Araújo[2], T.J. Mori[1], J.C. Cezar[1], R. Lora-Serrano[2] and *P. Schio*[3] *1. Brazilian Synchrotron Light National Laboratory (LNLS), Brazilian Center for Research in Energy and Materials (CNPEM), Campinas, Brazil; 2. Instituto de Física, Universidade Federal de Uberlandia, Uberlândia, Brazil; 3. Brazilian Nanotechnology National Laboratory (LNNano), Brazilian Center for Research in Energy and Materials (CNPEM), Campinas, Brazil*
View Digest Text

3:30

BF-06. **Magnetoelectric Coupling in $Pb(Zr,Ti)O_3/Co_{40}Fe_{40}B_{20}$ Nanoscale Waveguides Studied by All-Electrical Spin-Wave Spectroscopy.** D. Narducci[1,2], X. Wu[1], I. Boventer[3], J. De Boeck[1,4], A. Anane[3], P. Bortolotti[3], C. Adelmann[1] and *F. Ciubotaru*[1] *1. imec, Leuven, Belgium; 2. Departement Materiaalkunde (MTM), KU Leuven, Leuven, Belgium; 3. Unité Mixte de Physique CNRS-Thales, Palaiseau, France; 4. Departement Elektrotechniek (ESAT), KU Leuven, Leuven, Belgium*
View Digest Text

3:45

BF-07. **Ptychographic nanoscale imaging of multiferroic domains in freestanding bismuth ferrite films.** *T.A. Butcher*[1], N.W. Phillips[1], S. Finizio[1], C. Wei[2], C.A. Vaz[1], A. Kleibert[1], J. Yang[2,3], S. Huang[1] and J. Raabe[1] *1. Paul Scherrer Institut, Villigen, Switzerland; 2. Department of Physics, National Cheng Kung University, Tainan, Taiwan; 3. Center for Quantum Frontiers of Research & Technology (QFort), National Cheng Kung University, Tainan, Taiwan*
View Digest Text

4:00

BF-08. **Room Temperature Magnetocapacitance in Epitaxial (La,Sr)MnO_3/(K,Na)NbO_3-Based Heterostructures.** S. Pradhan[1], W. Prellier[2] and *M.R. Rao*[1] *1. Department of Physics, Indian Institute of Technology, Madras, Chennai, India; 2. Laboratoire de Cristallographie et Sciences des Matériaux, Caen, France*
View Digest Text

4:15

BF-09. **Evidence of strain and charge mediated coupling in Fe-Ga/PMN-PT composite multiferroic.** *M. Tortarolo*[1,2], D. Goijman[3], S. DiNápoli[1], M.A. Barral[1], A.A. Perez Martinez[3], A. Sarmiento[3], G. Ramirez[1], J. Gomez[3], C.A. Vaz[4], J. Milano[3] and C. Piamonteze[4] *1. INN, CONICET-CNEA, Buenos Aires, Argentina; 2. LAHN, CNEA, Buenos Aires, Argentina; 3. INN, CONICET-CNEA, Bariloche, Argentina; 4. SLS, PSI, Zurich, Switzerland*
View Digest Text

4:30

BF-10. **Learning fundamental physics of artificial spin systems through machine learning.** ***(Invited)*** N. Cruz[1], B.M. Cecchi[1], M. Knobel[1] and *K.R. Pirota*[1] *1. Universidade Estadual de Campinas, Campinas, Brazil*
View Digest Text

Session BG
SKYRMIONS AND SPIN-ORBIT TORQUE DEVICES

Michal Slezak, Chair
AGH University of Science and Technology, Krakow, Poland

2:00

BG-01. **Gate-controlled skyrmion and domain wall chirality.** ***(Invited)*** *J. Fischer*[1], C. Fillion[1], C. Gueneau[1], F. Ibrahim[1], R. Kumar[1], C. Balan[2], A. Fassatoui[2], S. Pizzini[2], L. Ranno[2], L. Cagnon[2], D. Ourdani[3], M. Belmeguenai[3], Y. Roussigné[3], S. Chérif[3], S. Auffret[1], I. Joumard[1], O. Boulle[1], G. Gaudin[1], M. Chshiev[1], L.D. Buda-Prejbeanu[1], C. Baraduc[1] and H. Béa[1] *1. CEA-SPINTEC, Grenoble, France; 2. Institut Néel CNRS, Grenoble, France; 3. Université Sorbonne, Paris, France*
View Digest Text

2:30

BG-04. **Composite skyrmion-vortex matter in ferromagnet-superconductor heterostructures.** ***(Invited)***
C.C. de Souza Silva[1] and J.F. Neto[1,2] *1. Federal University of Pernambuco, Recife, Brazil; 2. Universidade Federal do Piaui, Teresina, Brazil*
View Digest Text

3:00

BG-05. **Spin-orbit torque in α-W-based magnetic tunnel junction.** M. Cierpial[3], K. Grochot[3], J. Mojsiejuk[3], M. Vafaee[1], J. Wrona[1], T. Nan[2] and *W. Skowronski*[3] *1. Singulus Technologies AG, Kahl am Main, Germany; 2. Tsinghua University, Beijing, China; 3. Institute of Electronics, AGH University of Krakow, Krakow, Poland*
View Digest Text

3:15

BG-06. **Spin-Orbit Torque Driven True Random Number Generation by Varying the Field-Like to Damping-Like Torque Ratio.** M. Lee[1], S. Kim[2], S. Yoon[1], J. Lee[1], H. Ko[1], G. Kim[3], S. Hong[3], K. Lee[2] and *Y. Kim*[1] *1. Department of Materials Science and Engineering, 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. School of Cybersecurity, Korea University, Seoul, The Republic of Korea*
View Digest Text

BG-10. **Spin-orbit torques in CrXY monolayers (X, Y ∈ {S, Se, Te}): an *ab initio* study.** *L. Vojáček*[1], J.E. Medina Dueñas[2], J. Li[3], F. Ibrahim[1], S. Roche[2,4], M. Chshiev[1,5] and J.H. Garcia[2] *1. CEA-SPINTEC, Grenoble, France; 2. ICN2, Barcelona, Spain; 3. LETI, Grenoble, France; 4. ICREA, Barcelona, Spain; 5. IUF, Paris, France*
View Digest Text

EXHIBIT HALL

Session BP
MAGNETIC RECORDING, MRAM AND RELATED DEVICES (Poster Session)

SN Piramanayagam, Co-Chair
Nanyang Technological University, Singapore
Simon Greaves, Co-Chair
Tohoku University, Sendai, Japan

BP-01. **Spin-dependent transport in Spin-orbit Ferroelectric devices, modelled and studied via Finite Element Method simulations.** *P. Sgarro*[1], T. Frottier[1], A. Kandazoglou[1], S. Teresi[1], M. Culot[1], M. Cosset-Cheneau[1], F. Osana[1], L. Anghel[1], A. Marty[1], L. Vila[1], G. Prenat[1] and J. Attané[1] *1. CEA-SPINTEC, Grenoble, France*
View Digest Text

BP-02. **Enhanced SOT Efficiency in Pt/Co Systems with a NiO Interlayer for SOT-MRAM.** *M. Wijshoff*[1,2], R. Carpenter[1], G. Talmelli[1], S. Couet[1], C. Fleischmann[1,2] and K. Temst[2,1] *1. imec, Leuven, Belgium; 2. QSP, KU Leuven, Leuven, Belgium*
View Digest Text

BP-03. **Magnetic-Resistive Random Access Memories based on Diluted Co-TiO_2 Nanotubes.** K.S. Jaimes[1], H.P. Quiroz[1], J.A. Calderón[1,2] and *A. Dussan Cuenca*[1] *1. Department of Physics, Universidad Nacional de Colombia, Bogotá, Colombia; 2. Engineering and Basic Science Faculty, Universidad Central, Bogotá, Colombia*
View Digest Text

BP-05. **Racetrack memory devices based on freestanding multilayers.** *K. Gu*[1,2], Y. Guan[1], P. Wang[1], B. Hazra[1], H. Deniz[1], A. Migliorini[1], W. Zhang[1] and S. Parkin[1,2] *1. NISE, Max Planck Institute of Microstructure Physics, Halle, Germany; 2. Martin-Luther-University Halle-Wittenberg, Halle, Germany*
View Digest Text

BP-07. **Towards integrated skyrmionic artificial synapses.** *W. Griggs*[1], M. Lewandowski[1], I. Charalampidis[1], V. Pavlidis[1,2] and C. Moutafis[1] *1. The University of Manchester, Manchester, United Kingdom; 2. Aristotle University of Thessaloniki, Thessaloniki, Greece*
View Digest Text

BP-08. **Leveraging the phase dynamics of spin-torque nano-oscillators for unconventional computing.** A. Hakam[1], N. Phan[1], L. Martins[1], L. Hutin[2], F. Badets[2], L. Benetti[3], A. Jenkins[3], R. Ferreira[3], *P. Talatchian*[1] and U. Ebels[1] *1. Univ. Grenoble Alpes, CEA, CNRS, Grenoble INP, SPINTEC, 38000 Grenoble, France; 2. CEA-Leti Minatec, Grenoble, France; 3. International Iberian Nanotechnology Laboratory (INL), 4715-31 Braga, Portugal*
View Digest Text

BP-09. **Towards 3.8 nm diameter grains and 53.6 T/in^2 areal grain density FePt granular films with co-addition of nitride and carbon as grain boundary materials for HAMR media.** *K. Tham*[1], R. Kushibiki[1] and S. Saito[2] *1. Tanaka Kikinzoku Kogyo, Sendai, Japan; 2. Tohoku University, Sendai, Japan*
View Digest Text

BP-10. **Using Long Short-Term Memory to Estimate the Two-Dimensional Interference of Bit-Patterned Media Recording Systems.** T.A. Nguyen[1] and *J. Lee*[1] *1. Soongsil University, Seoul, The Republic of Korea*
View Digest Text

BP-11. **Optimization of Layer Thicknesses for Dual-Layer Bit-Patterned Media Recording (BPMR) Systems.** *N. Rueangnetr*[1], C. Warisarn[1] and S. Greaves[2] *1. College of Advanced Manufacturing Innovation, King Mongkut's Institute of Technology Ladkrabang, Bangkok, Thailand; 2. Research Institute of Electrical Communication (RIEC), Tohoku University, Sendai, Japan*
View Digest Text

EXHIBIT HALL

Session BQ
SPINTRONICS WITH ANTIFERROMAGNETS (Poster Session)

Qi Wang, Chair
Huazhong University of Science & Technology, Wuhan, China

BQ-01. **Electrical Manipulation and Detection of Antiferromagnetism in Magnetic Tunnel Junctions.** A. Du[1], *D. Zhu*[1], K. Cao[1], Z. Zhang[1], Z. Guo[1], K. Shi[1], D. Xiong[1], R. Xiao[1], W. Cai[1], J. Yin[1], S. Lu[1], C. Zhang[1], Y. Zhang[1], S. Luo[2], A. Fert[3] and W. Zhao[1] *1. Beihang University, Beijing, China; 2. HUAWEI, Shenzhen, China; 3. Univ. Paris-Sud, Paris, France*
View Digest Text

BQ-02. **Withdrawn**

BQ-03. **Exploring Anomalous Hall Effects in Ta(Al)-TbCo-Ta(Al) Structures with Vertical Composition Gradients.** R.C. Bhatt[1,2], L. Ye[1,2], M. Tsai[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

BQ-04. **The Deposition Temperature Influence in $Pt/CoFe_2O_4$ Thin Films on Spin Hall Magnetoresistance for a Wide Range of Fields and Temperatures.** *P.R. Ribeiro*[1], M. Gamino[2], R. Rodriguez[3] and K.R. Pirota[1] *1. Universidade Estadual de Campinas, Campinas, Brazil; 2. Universidade Federal do Rio Grande do Norte, Natal, Brazil; 3. Pontificia Universidad Católica de Chile, Santiago, Chile*
View Digest Text

BQ-05. **Spin Seebeck effect in the spin-flop and paramagnetic phases of the antiferromagnet $RbMnF_3$.** *J. Marques de Lima*[1], P. Trajano Ribeiro[1], E. Souza[1], F. de Araujo Machado[1] and S.M. Rezende[1] *1. Departamento de Física, Universidade Federal de Pernambuco, Recife, Brazil*
View Digest Text

BQ-06. **Quantum Sensing of Spin Fluctuations in Anisotropic Antiferromagnetic Insulators Using Nitrogen-Vacancy Centers.** R. Rodriguez[1], *R. Cabezón*[1], F. Pinto[1], E. Rodriguez[1] and J. Maze[1] *1. Department of Physics, Pontifical Catholic University of Chile, Santiago, Chile*
View Digest Text

BQ-07. **Evidence of Spin-Polarized Current in Fe-Rich NbFe2 Compound.** *M. Bigolin Lorenzon*[1], O. Isnard[2], A. M. H. de Andrade[1], M. Tumelero[1], P. Pureur[1] and F. Mesquita[1] *1. Instituto de Física, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil; 2. Université du Grenoble Alpes, Grenoble, France*
View Digest Text

BQ-08. **Unveiling a Bulk Antiferromagnetic Order via the Polarity of Spin-orbit Torque Ratchet at Ferromagnet/ Antiferromagnet Interface.** *H. Chang*[1] and C. Yang[1] *1. Department of Materials Science and Engineering, National Yang Ming Chiao Tung University, Hsinchu, Taiwan*
View Digest Text

BQ-09. **Raman Spectroscopy of Optimally-Doped Manganites with Praseodymium Substitution $La_{5/8-x}Pr_xCa_{3/8}MnO_3$ (x = 0.35; 0.40; 0.45).** *G.K. Soares*[1], D. Carranza-Célis[2], J.A. Bohorquez[2], J.G. Ramirez[2] and D. Muraca[1] *1. DEQ, Universidade Estadual de Campinas, Campinas, Brazil; 2. Department of Physics, Universidad de los Andes, Bogota, Colombia*
View Digest Text

BQ-10. **Probing Magnetic Phase Transitions in $HoMnO_3$: A Landau Theory Analysis of Perturbed Angular Correlation Spectroscopy Data.** *L. Scalise*[1], N. Pereira de Lima[1], L.F. Pereira[1], J. Schell[2,3], A. Burimova[1], B.S. Corrêa[1], A. A. Miranda[1] and A.W. Carbonari[1] *1. CERPq, IPEN, Sao Paulo, Brazil; 2. CENIDE, Essen, Germany; 3. ISOLDE, CERN, Geneva, Switzerland*
View Digest Text

EXHIBIT HALL

Session BR
NANOPARTICLES AND NANOWIRES (Poster Session)

Marcio Correa, Chair
Federal University of Rio Grande do Norte, Natal, Brazil

BR-01. **Effect of synthesis method and calcination temperature on the physical properties of Ni-NiO nanocomposites.** *R.A. Pinto*[1], J. Soares[1], R.B. da Silva[1], M. Correa[2] and F. Bohn[2] *1. Departamento de Física, Universidade do Estado do Rio Grande do Norte, Parnamirim, Brazil; 2. Departamento de Física, Universidade Federal do Rio Grande do Norte, Natal, Brazil*
View Digest Text

BR-02. **Withdrawn**

BR-03. **Control of Magnetic Nanoparticle Properties by Different Syntheses Methodologies.** *B.S. Corrêa*[1], C. Sena[2], M.S. Costa[2], G.A. Cabrera-Pasca[2], R.S. Freitas[3] and A.W. Carbonari[1] *1. CERPQ, Instituto de Pesquisas Energéticas e Nucleares, São Paulo, Brazil; 2. Faculdade de Ciências Exatas e Tecnologia, Federal University of Pará, Abaetetuba, Brazil; 3. Instituto de Física, University of São Paulo, São Paulo, Brazil*
View Digest Text

BR-04. **Extremophilic microorganisms: An alternative as synthesizers of ferromagnetic nanoparticles.** *V. Antúnez - Ossio*[1] and J.M. Blamey[1,2] *1. Laboratorio de Bioquímica de Extremófilos, Universidad de Santiago, Santiago, Chile; 2. Fundación Biociencia, Santiago, Chile*
View Digest Text

BR-05. **Unsaturated Modes of Ferromagnetic Resonance in Maghemite Nanoparticles.** *M. Pessoa*[1], M.A. Sousa[2], I.C. Merino[3], P.C. Morais[4,5], F. Pelegrini[6], M.S. Parise[4], L.C. Figueiredo[4] and E.M. Saitovitch[3] *1. Departamento de Ciências Naturais, Universidade Federal do Espirito Santo, São Mateus, Brazil; 2. Instituto de Ciências Exatas e Tecnológicas, Universidade Federal de Jataí, Jataí, Brazil; 3. Centro Brasileiro de Pesquisas Físicas, Rio de Janeiro, Brazil; 4. Universidade de BrasÍlia, Brasília, Brazil; 5. Universidade Católica de Brasília, Brasília, Brazil; 6. Universidade Federal de Goiás, Goiânia, Brazil*
View Digest Text

BR-06. **Alternative One-Pot Microwave Assisted Synthesis of Superparamagnetic $CoFe_2O_4$ Nanoparticles.** *K.O. Abreu*[1,2,3]
1. Departamento de Química Orgânica e Inorgânica, Universidade Federal do Ceará, Fortaleza, Brazil; 2. Departamento de Química Analítica e Físico-Química, Universidade Federal do Ceará, Fortaleza, Brazil; 3. Instituto de Química, Universidade de São Paulo, São Paulo, Brazil
View Digest Text

BR-07. **Impact of temperature on structural and magnetic properties of $CoFe_2O_4$ nanoparticles.** *T. da Silva Nascimento Sales*[1], K.S. Souza[1], J.A. Guerra[1], D.P. Vieira[1], R.N. Saxena[1] and A.W. Carbonari[1] *1. Instituto de Pesquisas Energéticas e Nucleares, São Paulo, Brazil*
View Digest Text

BR-09. **Exchange Bias Effects in Bismuth Ferrite Nanostructures produced by Pulsed Laser Deposition.** D. M. A. García[1], R. D. Santos[1], A. M. S. Gomes[2] and *W. Castro Nunes*[1]
1. Department of Physics, Universidade Federal Fluminense, Niteroi, Brazil; 2. Department of Physics, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil
View Digest Text

BR-10. **Investigating Unusual Dynamics: Time and Frequency-Dependent Variations in Specific Power Absorption of Magnetite Nanoparticles in Magnetic Hyperthermia.** *G.S. Silva*[1], A.A. de Almeida[1], F. Fabris[1] and D. Muraca[1]
1. Instituto de Física "Gleb Wataghin", Universidade Estadual de Campinas, Sumaré, Brazil
View Digest Text

BR-11. **Interface Phenomena and Magnetic Hyperthemia of Fe_3O_4 Nanoparticles.** *M.B. Alves*[1], A.A. de Almeida[1], P. Tancredi[2] and D. Muraca[1] *1. IFGW, Universidade Estadual de Campinas, Campinas, Brazil; 2. Centro de Micro y Nanotecnología, Instituto Nacional de Tecnología Industrial, Buenos Aires, Argentina*
View Digest Text

BR-12. **Optimizing Magnetic Hyperthermia: Controlling Magnetic Properties of $Co_XFe_{3-X}O_4$ Nanoparticles for Enhanced Magnetoliposome-Mediated Drug Release.** *A.A. de Almeida*[1], G.S. Silva[1], F. Fabris[1], M. Knobel[1], K.R. Pirota[1] and D. Muraca[1] *1. Universidade Estadual de Campinas, Barao Geraldo - Campinas, Brazil*
View Digest Text

BR-13. **Withdrawn**

BR-14. **Producing High-Ratio Nanowires by Pressure-Induced Infiltration into Anodized Aluminum Oxide Nanoporous Template.** *L. Tomiatti*[1], A. Mendonça[1] and F. Béron[1]
1. Instituto de Física Gleb Wataghin, Universidade Estadual de Campinas, Campinas, Brazil
View Digest Text

BR-15. **Structural and Magnetic Characterization of a Ferrofluid Obtained Through an Economical Way of Chemical Synthesis.** I.G. Cely Orjuela[1,2], P.C. Rivas Rojas[3,6], P. Tancredi[4], O. Moscoso Londoño[5] and *L.M. Socolovsky*[1,2] *1. Universidad Tecnológica Nacional Facultad Regional Santa Cruz, Rio Gallegos, Argentina; 2. CIT Santa Cruz, CONICET, Rio Gallegos, Argentina; 3. Laboratorio de Cristalografía Aplicada, Instituto de Tecnologías Emergentes y Ciencias Aplicadas, UNSAM-CONICET, San Martín, Argentina; 4. Micro y nanotecnología, Instituto Nacional de Tecnología Industrial, San Martín, Argentina; 5. Facultad de Ingeniería, Universidad Autónoma de Manizales, Manizales, Colombia; 6. Instituto de Ingeniería Mecánica, Universidad Austral de Chile, Valdivia, Chile*
View Digest Text

BR-16. **Cobalt ferrite-polyurethane composites as magnetic valves for microfluidic systems.** A. Veloso-Fernández[1], J. Laza[1], S. Muñana-González[1], L. Ruiz-Rubio[1,3], L. Pérez-Álvarez[1,3], A. Aguilera-Grande[1], D. Salazar Jamillo[3], *A. Lopes*[1,2] and J. Vilas-Vilela[1,3] *1. Department of Physical-Chemistry, University of Basque Country, Leioa, Spain; 2. Ikerbasque- Basque Foundation for Science, Bilbao, Spain; 3. BC Materials, Basque Center for Materials, Applications and Nanostructures, Leioa, Spain*
View Digest Text

EXHIBIT HALL

Session BS
PERMANENT MAGNET MACHINES I (Poster Session)

Narayan Kar, Co-Chair
University of Windsor, Windsor, ON, Canada
Elena Lomonova, Co-Chair
Technische Universiteit Eindhoven, Eindhoven, Netherlands

BS-01. **Computation-Efficient Current Harmonic Mitigation for Dual Three-Phase Permanent Magnet Synchronous Motors.** Z. Zhang[1], J. Zhang[1], R. Han[2], *Y. Wu*[1], Y. Gong[1] and S. Chang[1] *1. Tianjin University, Tianjin, China; 2. Tianjin Navigation Instruments Research Institute, Tianjin, China*
View Digest Text

BS-02. **A Study on reducing electromagnetic vibrations noise by changing the rotor shape for traction motors.** *S. Lee*[1], S. Song[2], I. Yang[2], D. Jung[3] and W. Kim[1] *1. Department of Electrical Engineering, Gachon University, Seongnam-si, The Republic of Korea; 2. Hanyang University, Seoul, The Republic of Korea; 3. Halla University, Wonju, The Republic of Korea*
View Digest Text

BS-03. **Design of a Slotless Structure for Minimizing Cogging Torque and Torque Ripple in a Column Type EPS Motor for Vehicles.** D. Choi[1], D. Kim[2], *H.S. Han*[1], D. Jung[3] and W. Kim[4] *1. Department of Next Generation Smart Energy System Convergence, Gachon University, Seongnam, The Republic of Korea; 2. Department of Electrical Engineering, Hanyang University, Seoul, The Republic of Korea; 3. Department of Mechanical Automotive and Robot Engineering, Halla University, Wonju, The Republic of Korea; 4. Department of Electrical Engineering, Gachon University, Seongnam, The Republic of Korea*
View Digest Text

BS-04. **Withdrawn**

BS-05. **Asymmetric Design of Consequent-Pole to Reduce Torque Ripple.** *C. Jo*[1], I. Yun[1], H. Hong[1], C. Jin[2], S. Yoon[2] and J. Lee[1] *1. Department of Electrical Engineering, Hanyang University, Seoul, The Republic of Korea; 2. Department of Electrical Engineering, Wonkwang University, Iksan, The Republic of Korea*
View Digest Text

BS-06. **A Study on the Design of Axial Flux Motor for Increased Power Density Compared to Radial Flux Motor.** *M. Youn*[3], D. Nam[3], M. Hong[2], N. Jo[3] and W. Kim[1] *1. Department of Electrical Engineering, Gachon University, Seongnam, The Republic of Korea; 2. Department of Electrical Engineering, Hanyang University, Seoul, The Republic of Korea; 3. Department of Next Generation Energy System Convergence, Gachon University, Seongnam, The Republic of Korea*
View Digest Text

BS-08. **Impact of Characteristic Current on Efficiency Area within Flux-Weakening Region of Interior Permanent Magnet Motor.** L.J. Vera[1] and *M. Hsieh*[1] *1. National Cheng Kung University, Tainan, Taiwan*
View Digest Text

BS-09. **Evaluation of Slot-Modulation Generated Surface Core Loss in Consequent Pole Permanent Magnet Synchronous Motor.** R. Kumar[1], *P. Song*[1] and N. Kar[1] *1. Department of Electrical and Computer Engineering, University of Windsor, Windsor, ON, Canada*
View Digest Text

BS-10. **Improvement of Magnetic Properties of Ring-shaped Laminated Cores by Laser Welding.** Y. Tsuchida[1] and *K. Otsuka*[1] *1. Oita University, Oita, Japan*
View Digest Text

BS-11. **Comparative Study of Cogging Torque, Torque Ripple and Vibration on Stator Tooth Chamfer Types in Permanent Magnet Synchronous Motors.** *Y. Won*[1], J. Kim[1], S. An[1] and M. Lim[1] *1. Hanyang University, Seoul, The Republic of Korea*
View Digest Text

BS-12. **Design process of high power density hybrid type motor using 3D printing.** H. Kim[1], Y. Lee[1], H. Pyo[2], S. Ko[1] and *W. Kim[2] 1. Department of Next Generation Energy System Convergence, Gachon University, Seongnam, The Republic of Korea; 2. Department of Electrical Engineering, Gachon University, Gwangmyeong-si, The Republic of Korea*
View Digest Text

BS-13. **A Study on the High Efficiency Design and Demagnetization of Hybrid Line Start Permanent Magnet Synchronous Motor.** H. Hong[1], C. Jo[1], *H. Koo*[1], J. Lee[1], D. Jung[2] and B. Kang[3] *1. Department of Electrical Engineering, Hanyang University, Seoul, The Republic of Korea; 2. Department of Mechanical, Automotive and Robot Engineering, Halla University, Wonju, The Republic of Korea; 3. SJ Global Co. R&D Center, Changwon, The Republic of Korea*
View Digest Text

OCEANIA IV & V

Session CA
GRADIENT DZYALOSHINSKII-MORIYA INTERACTION

Witold Skowronski, Chair
AGH University of Krakow, Krakow, Poland

8:30

CA-01. **Conical-helix magnetic textures stabilized in planar and curved films with different kinds of Dzyaloshinskii-Moriya interaction.** ***(Invited)*** M. Cepeda-Arancibia[1,2], B. Mimica-Figari[1], F. Brevis[1], D.I. Cortés-Ortuño[1], R. Gallardo[1,2] and *P. Landeros[1,2] 1. Departamento de Física, Universidad Técnica Federico Santa María, Valparaiso, Chile; 2. Center for the Development of Nanoscience and Nanotechnology (CEDENNA), Santiago, Chile*
View Digest Text

9:00

CA-02. **Fast moving spin textures in ferrimagnets: from domain walls to skyrmions.** ***(Invited)*** L. Berges[1], E. Haltz[1], S. Panigraphy[1], S. Mallick[1], R. Weil[1], S. Rohart[1], J. Sampaio[1] and *A. Mougin[1] 1. UMR CNRS 8502, Laboratoire de Physique des Solides Université Paris-Saclay, Orsay, France*
View Digest Text

9:30

CA-03. **First-principles calculations for Dzyaloshinskii-Moriya interaction.** ***(Invited)*** *H. Yang[1] 1. Zhejiang University, Hangzhou, China*
View Digest Text

10:00

CA-04. **Skyrmions and Hopfions: Magnetic vs. Polar Structures.** ***(Invited)*** *S. Kondovych*[1], A. Razumnaya[2], Y. Tikhonov[3], V. Vinokur[4] and I. Luk'yanchuk[3] *1. Institute for Theoretical Solid State Physics, IFW Dresden, Dresden, Germany; 2. Jozef Stefan Institute, Ljubljana, Slovenia; 3. University of Picardie Jules Verne, Amiens, France; 4. Terra Quantum AG, St. Gallen, Switzerland*
View Digest Text

10:30

CA-05. **Withdrawn**

OCEANIA VI & VII

Session CB
MAGNONICS II: ELECTRICAL AND OTHER COUPLING EFFECTS

Santa Pile, Chair
Johannes Kepler University Linz, Linz, Austria

8:30

CB-01. **Room temperature switching of perpendicular magnetization by magnon torques.** ***(Invited)*** *F. Wang*[2,1], G. Shi[1] and H. Yang[1] *1. ECE, National University of Singapore, Singapore; 2. Shanxi Normal University, Taiyuan, China*
View Digest Text

9:00

CB-02. **Optical and electrical investigation of Permalloy nanomagnet reversal induced by propagating magnons in a magnonic memory.** *S. Joglekar*[1], M. Xu[1] and D. Grundler[1,2] *1. Laboratory of Nanoscale Magnetic Materials and Magnonics, Institute of Materials, Swiss Federal Institute of Technology, (EPFL), Lausanne, Switzerland; 2. Institute of Electrical and Micro Engineering (IEM), Swiss Federal Institute of Technology, (EPFL), Lausanne, Switzerland*
View Digest Text

9:15

CB-03. **Controlling Spin-Waves by Spin-Polarized Current for Logic and Neuromorphic Computing.** *R.M. de Menezes*[1,2], J. Mulkers[3], C.C. de Souza Silva[1], B. Van Waeyenberge[3] and M. Milosevic[2] *1. Department of Physics, Federal University of Pernambuco, Recife, Brazil; 2. Department of Physics, University of Antwerp, Antwerp, Belgium; 3. Department of Physics, Ghent University, Ghent, Belgium*
View Digest Text

9:30

CB-04. **Magnonic Hall Effect and Magnonic Focusing Induced by Hopfions.** ***(Invited)*** C. Saji[1], R. Troncoso[2], V. Carvalho[3], D. Altbir[4,5] and *A. Nuñez*[1] *1. Departamento de Fisica, Universidad de Chile, Santiago, Chile; 2. Universidad Adolfo Ibañez, Santiago, Chile; 3. Universidade Federal de Viçosa, Viçosa, Brazil; 4. Universidad Diego Portales, Santiago, Chile; 5. Universidad de Santiago de Chile, Santiago, Chile*
View Digest Text

10:00

CB-05. **Detection of Gate-Switchable Magnons in Graphene via Thermal Transport.** *J. Waissman*[1,2], Z. Yan[1], A.V. Talanov[1], Y.J. Shin[1], D.H. Najafabadi[1] and P. Kim[1] *1. Department of Physics, Harvard University, Cambridge, MA, United States; 2. Institute of Applied Physics, The Hebrew University of Jerusalem, Jerusalem, Israel*
View Digest Text

10:15

CB-06. **Going vertical: sub-micrometer spin-wave directional couplers.** *K. Szulc*[1] and M. Krawczyk[1] *1. Faculty of Physics, Adam Mickiewicz University, Poznan, Poland*
View Digest Text

10:30

CB-07. **Biasing Magnonic Devices with Integrated Permanent Micromagnets.** *M. Cocconcelli*[1], F. Maspero[1], A. Cattoni[1], B. Heinz[2], P. Pirro[2], R. Erdélyi[3], A. Papp[3], G. Csaba[3], M. Madami[4], S. Tacchi[5] and R. Bertacco[1] *1. Department of Physics, Politecnico di Milano, Milan, Italy; 2. Rheinland-Pfälzische Technische Universität Kaiserslautern-Landau and Landesforschungszentrum OPTIMAS, Kaiserslautern, Germany; 3. Pazmany Peter Catholic University, Budapest, Hungary; 4. Dipartimento di Fisica e Geologia, Università di Perugia, Perugia, Italy; 5. Istituto Officina dei Materiali del CNR, Perugia, Italy*
View Digest Text

10:45

CB-08. **Exploring Spin Wave Dynamics in Square Artificial Spin Ice Vertices via Ferromagnetic Resonance.** *G.A. Gomez-Iriarte*[1], D. Gonzalez-Chavez[1], R.L. Sommer[1] and J.P. Sinnecker[1] *1. Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, Brazil*
View Digest Text

11:00

CB-09. **Phase velocity reversal and propagation of zero-momentum spin waves in synthetic antiferromagnets with uniaxial anisotropy.** O. Wojewoda[1], J. Holobradek[1], D. Pavelka[1], E. Pribytova[1], J. Krcma[1], J. Klima[1], J. Michalicka[1], T. Lednicky[1], A. Chumak[2] and *M. Urbánek*[1] *1. Brno University of Technology, Brno, Czechia; 2. University of Vienna, Vienna, Austria*
View Digest Text

OCEANIA IX & X

Session CC
NEUROMORPHIC AND UNCONVENTIONAL COMPUTING

Sonal Shreya, Co-Chair
Aarhus University, Aarhus, Denmark
Sai Li, Co-Chair
Beihang University, Beijing, China

8:30

CC-01. **Spintronics domain wall neuron devices with leak-integrate-fire functions.** ***(Invited)*** B. Sekh[1], W. Mah[1], H. Rahaman[1], D. Kumar[1], S. Dhull[3], A. Nisar[3], M. Ramu[1], J. Chan[1,2], K.R. Ganesh[2], V.B. Naik[2], B.K. Kaushik[3] and *S. Piramanayagam*[1] *1. School of Physical and Mathematical Sciences, Nanyang Technological University, Singapore; 2. GlobalFoundries, Singapore; 3. Department of Electronics and Communication Engineering, Indian Institute of Technology, Roorkee, India*
View Digest Text

9:00

CC-02. **Neuromorphic Computing with the Ferromagnetic/ Antiferromagnetic SOT Systems: the Role of Emerging Antiferromagnetic Phase.** *D.K. Ojha*[1,2,5], Y. Huang[1], Y. Lin[1], R. Chatterjee[2,3], W. Chang[4] and Y. Tseng[1,5] *1. Department of Materials Science & Engineering, National Yang Ming Chiao Tung University, Hsinchu, Taiwan; 2. Department of Physics, Indian Institute of Technology Delhi, Delhi, India; 3. National University of Science and Technology MISiS, Moscow, Russian Federation; 4. Powerchips Semiconductor Manufacturing Corporation, Hsinchu, Taiwan; 5. International College of Semiconductor Technology, National Yang Ming Chiao Tung University, Hsinchu, Taiwan*
View Digest Text

9:15

CC-03. **Gradient Descent Learning in Multilayer Antiferromagnetic Neural Networks.** *H. Bradley*[1], V. Tyberkevych[1] and A.N. Slavin[1] *1. Department of Physics, Oakland University, Auburn Hills, MI, United States*
View Digest Text

9:30

CC-04. **Unleashing the Potential of Magnetic Vortex in Spintronic Devices for Various Applications.** ***(Invited)*** *S. Shreya*[1], K.K. Das[2], Y. Rezaeiyan[1], T. Böhnert[3], S. Soni[2], R. Li[1], A. Jenkins[3], B.K. Kaushik[2], R. Ferreira[3], H. Farkhani[1] and F. Moradi[1] *1. Electrical and Computer Engineering Department, Aarhus University, Aarhus, Denmark; 2. Electronics and Communication Engineering Department, Indian Institute of Technology Roorkee, Roorkee, India; 3. Spitronics, International Iberian Nanotechnology Laboratory (INL), Braga, Portugal*
View Digest Text

10:00

CC-05. **Probability distributions generated using stochastic actuated perpendicular magnetic tunnel junctions.** *A. Sidi El Valli*[1], L. Rehm[1], M. Tsao[1], S. Misra[2], D. Smith[2] and A.D. Kent[1] *1. Department of Physics, New York University, New York, NY, United States; 2. Sandia National Laboratories, Albuquerque, NM, United States*
View Digest Text

10:15

CC-06. **Spintronic Oscillator-based Ising Machine simulated to solve large Max-Cut problems.** *V. Puliafito*[1], L. Mazza[1], A. Grimaldi[2], D. Rodrigues[1], E. Raimondo[2], M. Carpentieri[1] and G. Finocchio[2] *1. Department of Electrical and Information Engineering, Politecnico di Bari, Bari, Italy; 2. University of Messina, Messina, Italy*
View Digest Text

10:30

CC-07. **Brownian reservoir computing approach for Gesture recognition by using geometrically confined skyrmion dynamics.** *G. Beneke*[1^], T. Winkler[1], K. Raab[1], M.A. Brems[1], F. Kammerbauer[1], P. Gerhards[2], K. Knobloch[2], S. Krishnia[1], J. Mentink[3] and M. Kläui[1,4] *1. Institute of Physics, Johannes Gutenberg-Universität Mainz, Ober-Olm, Germany; 2. Infineon Technologies Dresden, Dresden, Germany; 3. Institute for Molecules and Materials, Radboud University, Nijmegen, Netherlands; 4. Center for Quantum Spintronics, Norwegian University of Science and Technology, Trondheim, Norway*
View Digest Text

10:45

CC-08. **Skyrmionic Synapse Implementation for Pattern Recognition using Convolutional Neural Network.** *S. Gupta*[1], V. Vadde[1], B. Muralidharan[1] and A. Sharma[2] *1. Department of Electrical Engineering, Indian Institute of Technology Bombay, Mumbai, India; 2. Department of Electrical Engineering, Indian Institute of Technology Ropar, Rupnagar, India*
View Digest Text

11:00

CC-09. **Leveraging Spintronic Nonlinear Random Projections for Handwritten Digit Recognition.** *A. Moureaux*[1], S. de Wergifosse[1], C. Chopin[1] and F. Abreu Araujo[1] *1. UCLouvain, Louvain-la-Neuve, Belgium*
View Digest Text

11:15

CC-10. **Magnetization Dynamics in Square Lattice Artificial Spin Ice.** C. Sullivan[1], H. Chen[2], B. Fang[3], X. Zhang[3] and *S. Majetich*[2] *1. Department of Materials Science and Engineering, Carnegie Mellon University, Pittsburgh, PA, United States; 2. Department of Physics, Carnegie Mellon University, Pittsburgh, PA, United States; 3. Department of Materials Science and Engineering, King Abdullah University of Science and Technology (KAUST), Thuwal, Saudi Arabia*
View Digest Text

Session CD
NOVEL SPINTRONICS

Clécio de Souza Silva, Chair
Federal University of Pernambuco, Recife, Brazil

8:30

CD-01. **Visualizing symmetry-breaking electronic orders in epitaxial Kagome magnet FeSn films.** ***(Invited)*** *L. Li*[1]
1. West Virginia University, Morgantown, WV, United States
View Digest Text

9:00

CD-03. **Withdrawn**

9:15

CD-04. **Chiral antiferromagnetic Josephson junctions as spin-triplet supercurrent spin-valves and dc SQUIDs.** ***(Invited)*** *K. Jeon*[1] *1. Chung-Ang University (CAU), Seoul, The Republic of Korea*
View Digest Text

9:45

CD-05. **Enhanced Spin-Orbit Torque Flexible Spintronic Device.** *A. Chouhan*[1], H.A. Mendonca[1], S. Dutta[1], A. Shukla[1], R.R. Pandey[1] and A.A. Tulapurkar[1] *1. Electrical Engineering Department, Indian Institute of Technology Bombay, Mumbai, India*
View Digest Text

10:00

CD-06. **Large Interfacial Rashba Torques in Atomically Thin Co|Al Systems.** *N. Sebe*[1], S. Krishnia[2], S. Mallick[1], Y. Sassi[1], S. Collin[1], T. Denneulin[3], A. Kovács[3], R.E. Dunin-Borkowski[3], A. Fert[1], J. George[1], V. Cros[1] and H. Jaffrès[1] *1. Laboratoire Albert Fert, CNRS, Thales, Université Paris-Saclay, Palaiseau, France; 2. Institute of Physics, Johannes Gutenberg-University Mainz, Mainz, Germany; 3. Forschungszentrum Julich, Jülich, Germany*
View Digest Text

10:15

CD-07. **Transporting the Shape of Spin: From Spintronics to Multipoletronics.** ***(Invited)*** *H. Chen*[1] *1. Department of Physics, Colorado State University, Fort Collins, CO, United States*
View Digest Text

10:45

CD-08. **Room temperature spin-charge interconversion in nanodevices made of sputtered GeTe.** S. Teresi[1], *P. Sgarro*[1], M. Cosset-Cheneau[1], T. Frottier[1], W. Savero-Torres[1], M. Wissman[1], M. Culot[1], F. Osana[1], A. Kandazoglou[1], J. Paterson[2], A. Oysel Mestre[2], F. Hippert[3], F. Leroy[4], B. Croes[4], M. Bibes[5], A. Manchon[4], A. Marty[1], J. Attané[1], F. Cheynis[4], G. Prenat[1], L. Hutin[2], P. Noé[2] and L. Vila[1]
1. CEA-SPINTEC, Grenoble, France; 2. CEA-LETI, Grenoble, France; 3. LMGP, Grenoble INP, Grenoble, France; 4. CINAM, Marseille, France; 5. Laboratoire Albert Fert, Paris, France
View Digest Text

11:00

CD-09. **Orbital and spin Hall angles in mesoscopic device.**
A.L. Barbosa[1] *1. Physics Department, Universidade Federal Rural de Pernambuco, Recife, Brazil*
View Digest Text

EUROPA I

Session CE
ELECTRICAL MACHINES AND POWER SYSTEM COMPONENTS

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

8:30

CE-01. **Test bench for characterization of HTS tapes at low magnetic fields based on additive manufacturing.**
K. Habelok[1], K. Gruszczyk[2], P. Lasek[1], D. Koterla[3] and *M. Stepien*[1] *1. Department of Power Electronics, Electrical Drives and Robotics, Silesian University of Technology, Gliwice, Poland; 2. Faculty of Electrical Engineering, Silesian University of Technology, Gliwice, Poland; 3. ILC Dover Poland Sp. z o.o., Gliwice, Poland*
View Digest Text

8:45

CE-03. **Overload Capabilities of Synchronous Motors.**
H.N. Nasser[1], S. Asfirane[1], *Y. Amara*[1] and F. Chabour[1]
1. Université Le Havre Normandie, Le Havre, France
View Digest Text

9:00

CE-04. **Online Permanent Magnet Demagnetization Monitoring using Model Reference Adaptive System Considering VSI Nonlinearity.** *S. Garaei*[1], C. Lai[1] and L. Iyer[2] *1. Electrical and Computer Engineering, Concordia University, Montréal, QC, Canada; 2. Magna International Inc, Troy, MI, United States*
View Digest Text

9:15

CE-05. **Maximum-Torque-per-Watt Control Framework for Variable Flux Reluctance Machines with Magnetic Saturation and Cross-Coupling.** *G. Bayazit*[1], J. Escarate[1], D. Ceylan[1], E. Ilhan Caarls[1], J. Schellekens[1], K.O. Boynov[1] and E. Lomonova[1] *1. Eindhoven University of Technology, Eindhoven, Netherlands*
View Digest Text

9:30

CE-06. **Improvement of the propulsion force by optimizing the range of magnetic field influence in a permanent magnet-HTS Hybrid Maglev Transporter System.** *A.H. Takinami*[1] and S. Ohashi[1] *1. Department of Electrical Engineering, Kansai University, Suita, Japan*
View Digest Text

9:45

CE-07. **Influence of friction on high speed permanent magnet bearing rings.** *T. Tan*[1,2], D.F. Förster[1], U. Pabst[1], U. Giesen[1], M. Butzek[1] and G. Natour[1,2] *1. Central Institute of Engineering, Electronics and Analytics – Engineering and Technology (ZEA-1), Forschungszentrum Jülich GmbH, Jülich, Germany; 2. Faculty of Mechanical Engineering, RWTH Aachen University, Aachen, Germany*
View Digest Text

10:00

CE-08. **A Novel Electromagnetic Force Calculation Method for Homopolar Hybrid Magnetic Bearing.** G. Cao[1], *H. Li*[1], H. Hu[1], S. Huang[1], H. Wang[1], K. Liu[2] and J. Wei[2] *1. Shenzhen University, Shenzhen, China; 2. Sun Yat-Sen University, Shenzhen, China*
View Digest Text

10:15

CE-09. **Noval Electrodynamic Damper for Homopolar and Heteropolar Electrodynamic Bearings.** *A. Alzhrani*[1] and K. Atallah[2] *1. Department of Electrical Engineering, Jubail Industrial College, Jubail, Saudi Arabia; 2. University of Sheffield, Sheffield, United Kingdom*
View Digest Text

10:30

CE-10. **Systematic Optimization of Electromagnet Hardware for Electromagnetic Suspension: A Fusion of Simulation and Multi-Objective Optimization Techniques.** J. Demicoli[1], *O. Kleikemper*[2] and S. Steinhorst[1] *1. Technical University of Munich, Munich, Germany; 2. TUM Hyperloop Program, Technical University of Munich, Munich, Germany*
View Digest Text

10:45

CE-11. **Proposal of a Bearingless Consequent-Pole Motor Using Combined Winding with Functions of Three-Phase Radial Suspension and Single-Phase Motor Driven by Zero-Sequence Current.** *Y. Fujii*[1] and K. Tanaka[1] *1. Department of Electrical and Electronic Engineering, Tokyo Institute of Technology, Tokyo, Japan*
View Digest Text

11:00

CE-12. **Experimental Verification of Orthogonal-Core-Type Variable Inductor with Permanent Magnets.** *H. Hatakeyama*[1], 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

EUROPA II

Session CF
MAGNETIC TEXTURES, STATICS, AND DYNAMICS

Christian Tzschaschel, Co-Chair
Max Born Institute, Berlin, Germany
Adekunle Adeyeye, Co-Chair
Durham University, Durham, United Kingdom

8:30

CF-01. **Spin wave localization in ferromagnetic layer induced by superconducting nanostructure.** *J. Kharlan*[1,2], K. Sobucki[1], K. Szulc[1], S. Memarzadeh[1] and J.W. Klos[1] *1. Adam Mickiewicz University, Poznan, Poland; 2. Institute of Magnetism, Kyiv, Ukraine*
View Digest Text

8:45

CF-02. **Critical slowing of the spin and charge density wave order in thin film Cr following photoexcitation.** *S.K. Patel*[1,2], O. Gorobtsov[3], D. Cela[2], S.B. Hrkac[2], N. Hua[2], R. Medapalli[1], A. Shabalin[2], J. Wingert[2], J.M. Glownia[4], D. Zhu[4], M. Chollet[4], O. Shpyrko[2], A. Singer[3] and E. Fullerton[1] *1. Center for Memory and Recording Research, University of California, San Diego, La Jolla, CA, United States; 2. Physics Department, University of California, San Diego, La Jolla, CA, United States; 3. Department of Materials Science and Engineering, Cornell University, Ithaca, NY, United States; 4. Linac Coherent Light Source, SLAC National Accelerator Laboratory, Menlo Park, CA, United States*
View Digest Text

9:00

CF-03. **Magnetization dynamics induced by spin-vortex locking in topological insulators proximate to a superconductor.** *F. Nogueira*[1] *1. Leibniz Institute for Solid State and Materials Research (IFW) Dresden, Dresden, Germany*
View Digest Text

9:15

CF-04. **Vortex chaotic dynamics in a cross-tie domain wall.** *M. Al-Mahdawi*[1] and M. Oogane[2] *1. Mechatronics Engineering Department, Libya International Medical University, Benghazi, Libya; 2. Tohoku University, Sendai, Japan*
View Digest Text

9:30

CF-05. **Resonant Excitation of Vortex Gyrotropic Mode via Surface Acoustic Waves.** A. Koujok[1], *A. Riveros*[2], D. Rodrigues[3], G. Finocchio[4], M. Weiler[1], A. Hamadeh[1] and P. Pirro[1] *1. Fachbereich Physik and Landesforschungszentrum OPTIMAS, Rheinland-Pfalzische, Technische Universitat Kaiserslautern- Landau, Kaiserslautern, Germany; 2. Escuela de Ingenieria, Universidad Central de Chile, Santiago, Chile; 3. Department of Electrical and Information Engineering, Politecnico di Bari, Bari, Italy; 4. Department of Mathematical and Computer Sciences, Physical Sciences and Earth Sciences, University of Messina, Messina, Italy*
View Digest Text

9:45

CF-06. **Non-Volatile Frequency Reconfiguration of Vortex Oscillators.** *M. Steblii*[1], A. Jenkins[1], L. Benetti[1], A. Schulman[1], E. Paz[1], T. Böhnert[1] and R. Ferreira[1] *1. International Iberian Nanotechnology Laboratory, Braga, Portugal*
View Digest Text

10:00

CF-07. **Geometry-induced effects in domain wall dynamics in stripes with spatially varying cross-section.** *K. Yershov*[1,2] *1. Leibniz Institute for Solid State and Materials Research in Dresden, Dresden, Germany; 2. Bogolyubov Institute for Theoretical Physics of the National Academy of Sciences of Ukraine, Kyiv, Ukraine*
View Digest Text

10:15

CF-08. **Quantitative Description of the Impact of the Ampère-Oersted Field on the Stiffness of Magnetic Vortices.** *S. de Wergifosse*[1], C. Chopin[1,2], A. Moureaux[1] and F. Abreu Araujo[1] *1. UCLouvain, Louvain-la-Neuve, Belgium; 2. CEA-SPINTEC, Grenoble, France*
View Digest Text

10:30

CF-11. **Graph Neural Networks to Predict Coercivity of Hard Magnetic Microstructures.** *H.A. Moustafa*[1], A. Kovacs[1], J. Fischbacher[1], M. Gusenbauer[1], Q. Ali[1,2], L. Breth[1], Y. Hong[3], W. Rigaut[3], T. Devillers[3], N. Dempsey[3], T. Schrefl[1,2] and H. Oezelt[1] *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, Wiener Neustadt, Austria; 3. CNRS, Grenoble INP, Institute Néel, Université Grenoble Alpes, Grenoble, France*
View Digest Text

10:45

CF-12. **Numerical simulations and annihilation mechanisms of skyrmion tubes in a bulk chiral magnet.** *D.I. Cortés-Ortuño*[1] and M. Birch[2] *1. Departmento de Física, Universidad Técnica Federico Santa María, Valparaíso, Chile; 2. RIKEN Center for Emergent Matter Science, Wako, Japan*
View Digest Text

Session CG
MAGNETORESISTANCE AND SPIN CURRENT GENERATION

Gyoung-Min Choi, Chair
Sungkyunkwan University, Suwon, The Republic of Korea

8:30

CG-01. **Thermally driven magneto-transport in quaternary spin-gapless semiconductors and semi-metal Heusler alloys.** ***(Invited)*** *H. Srikanth*[1] *1. Department of Physics, University of South Florida, Tampa, FL, United States*
View Digest Text

9:00

CG-02. **Thermal Spin-Current Generation in Bi-substituted YIG films with Perpendicular Magnetic Anisotropy.** *L.M. Solis*[1,2], A. Anadón[3], M. Rengifo[2], J. Santiso[4], J. Rojas-Sanchez[3], S. Petit-Watelot[3], M. Aguirre[2,5,6] and L. Steren[1,7] *1. Instituto de Nanociencia y Nanotecnología CNEA/CONICET - Constituyentes, San Martín, Argentina; 2. Instituto de Nanociencia y Materiales de Aragón, UNIZAR-CSIC, Zaragoza, Spain; 3. Institut Jean Lamour, Université de Lorraine CNRS UMR 7198, Nancy, France; 4. Catalan Institute of Nanoscience and Nanotechnology (ICN2), CSIC and BIST, Universitat Autònoma de Barcelona, Bellaterra, Spain; 5. Departamento de Física de la Materia Condensada, UNIZAR, Zaragoza, Spain; 6. Laboratorio de Microscopías Avanzadas, UNIZAR-CSIC, Zaragoza, Spain; 7. Consejo Nacional de Investigaciones Científicas y Técnicas, Ciudad Autónoma de Buenos Aires, Argentina*
View Digest Text

9:15

CG-03. **Anisotropic Magnetoresistance of Epitaxial Grown CoFe thin films on Flexible Mica and Rigid MgO Substrates.** J. Cheng[1], M. You[1], A. Anbalagan[1], G. Su[1], K. Chuang[2], C. Hsieh[3], C. Yang[3] and *C. Lee*[1,2] *1. Department of Engineering and System Science, National Tsing Hua University, Hsinchu, Taiwan; 2. Institute of Nuclear Engineering and Science, National Tsing Hua University, Hsinchu, Taiwan; 3. Department of Materials Science and Engineering, National Yang Ming Chiao Tung University, Hsinchu, Taiwan*
View Digest Text

9:30

Now VP7-21

CG-04. **High TMR in a semiconductor host with black phosphorus.** *H. Wei*[1], M. Galbiati[1], J. Peiro[1], S.M. Dubois[2], F. Brunnett[1], V. Zatko[1], R. Galceran[1], P. Brus[3], F. Godel[1], D. Perconte[1], F. Bouamrane[1], E. Gaufrès[4], A. Loiseau[4], F. Petroff[1], J. Charlier[2], M. Martin[1], B. Dlubak[1] and P. Seneor[1] *1. Laboratoire Albert Fert, CNRS, Thales, Université Paris-Saclay, Palaiseau, France; 2. Institute of Condensed Matter and Nanosciences (IMCN), Université Catholique de Louvain, Louvain-la-Neuve, Belgium; 3. Thales Research and Technology, Palaiseau, France; 4. Laboratoire d'Étude des Microstructures (LEM), CNRS, ONERA, Université Paris-Saclay, Châtillon, France*
View Digest Text

9:45

CG-05. **Longitudinal Spin Seebeck Effect on exchange biased system: A theoretical overview.** *M.A. Correa*[1] and F. Bohn[1] *1. Physics Department, Federal University of Rio Grande do Norte, Natal, Brazil*
View Digest Text

10:00

CG-06. **Spintronic applications from polymer-based magnetoelectric materials.** R. Carvalho[1,2], L. Amorim[1,2], S. Lanceros-Mendez[3,4] and *P. Martins*[1,2] *1. Department of Physics, Universidade do Minho, Braga, Portugal; 2. LaPMET - Laboratory of Physics for Materials and Emergent Technologies, Universidade do Minho, Braga, Portugal; 3. BC Materials, Basque Center for Materials, Applications and Nanostructures, Bilbao, Spain; 4. IKERBASQUE, Basque Foundation for Science, Bilbao, Spain*
View Digest Text

10:15

CG-07. **Self-induced inverse spin Hall effect in disordered FePt thin films.** *J. Ampuero Torres*[1*], A. Anadon[2], H. Damas[2], J. Ghanbaja[2], S. Petit-Watelot[2], J. Rojas-Sanchez[2], D. Velázquez[1], L. Avilés Félix[1], J. Gomez[1] and A. Butera[1] *1. Department of Physics, Balseiro Institut, San Carlos de Bariloche, Argentina; 2. Institut Jean Lamour, Nancy, France*
View Digest Text

10:30

CG-08. **Efficient spin to charge current conversion in WSe2 by spin pumping from CoFeB.** *E.O. Burgos Parra*[1,2], K. Abdukayumov[3], G. Rodriguez[2], C. Vergnaud[3], H. Boukari[3], A. Marty[3], F. Bonell[3], I.G. de Moraes[3], R. Rodriguez[4], S. Oyarzún[2] and M. Jamet[3] *1. Physics Department, Universidad de Chile, Santiago, Chile; 2. Physics Department, Universidad de Santiago de Chile, Santiago, Chile; 3. CEA-SPINTEC, Grenoble, France; 4. Pontificia Universidad Católica de Chile, Santiago, Chile*
View Digest Text

10:45

CG-09. **Maximizing Competing Spin Current of the W/Pt/ ferromagnet Devices with Spin-torque Ferromagnetic Resonance Analysis.** *J. Hsu*[1], C. Cheng[2], Y. Huang[2], Y. Wu[2], Y. Lin[2], W. Chang[3] and Y. Tseng[2] *1. Industry Academia Innovation School, Hsinchu, Taiwan; 2. Department of Materials Science & Engineering, National Yang Ming Chiao Tung University, Hsinchu, Taiwan; 3. Powerchip Semiconductor Manufacturing Corporation, Hsinchu, Taiwan*
View Digest Text

11:00

CG-10. **Unveiling the mechanism of spin to charge conversion in the ferroelectric Rashba semiconductor SnTe.** *M. Gamino*[1], E. Souza[2], J. Abrão[2] and S.M. Rezende[2] *1. Departament of Physics, Federal University of Rio Grande do Norte, Natal, Brazil; 2. Departament of Physics, Federal University of Pernanbuco, Recife, Brazil*
View Digest Text

11:15

CG-11. **Low damping and large charge-to-spin conversion efficiency in $Co_{25}Fe_{75}$/Pt thin films and microwire devices.** *P. Radhakrishnan*[1], T. Chen[1], Z. Zhang[2], R. Klause[2], B. Sahoo[3], E. Fullerton[3], A. Hoffmann[2] and A.D. Kent[1] *1. Center for Quantum Phenomena, Department of Physics, New York University, New York, NY, United States; 2. Materials Research Laboratory and Department of Materials Science and Engineering, University of Illinois Urbana-Champaign, Urbana, IL, United States; 3. Center for Memory and Recording Research, University of California San Diego, La Jolla, CA, United States*
View Digest Text

EXHIBIT HALL

Session CP
2D SPINTRONICS AND TOPOLOGICAL MATERIALS (Poster Session)

Connie Li, Chair
Naval Research Lab, Washington, DC, United States

CP-01. **Magnetic skyrmion ground state in a 2D van der Waals compound.** *Z. Yin*[1,2], A. Srivastava[1], K. Gu[1,2] and S. Parkin[1,2] *1. NISE, Max Planck Institute of Microstructure Physics, Halle, Germany; 2. Martin-Luther-University Halle-Wittenberg, Halle, Germany*
View Digest Text

CP-02. **Harnessing van der Waals $CrPS_4$ and surface oxides for unique pre-set field induced Exchange Bias in Fe_3GeTe_2.** *A. Puthirath Balan*[1], A. Kumar[1], T. Scholz[2], Z. Lin[3], A. Shahee[1], S. Fu[4], T. Denneulin[5], J. Vas[5], A. Kovács[5], R.E. Dunin-Borkowski[5], H. Wang[4], J. Yang[3], B. Lotsch[2], U. Nowak[6] and M. Kläui[1,7] *1. Institute of Physics, Johannes Gutenberg University, Mainz, Germany; 2. Max Planck Institute for Solid State Research, Stuttgart, Germany; 3. School of Physics, State Key Laboratory for Artificial Microstructure and Mesoscopic Physics, Beijing, China; 4. Max Planck Institute for Polymer Research Mainz, Mainz, Germany; 5. Forschungszentrum Jülich, Jülich, Germany; 6. Department of Physics, University of Konstanz, Konstanz, Germany; 7. Department of Physics, Norwegian University of Science and Technology, Trondheim, Norway*
View Digest Text

CP-04. **Ultra-high Curie temperature and specific magnetic configuration in 2D Fe_2O_3.** T. Wang[1], W. Xue[1], H. Yang[3], C. Song[2] and *X. Xu*[1] *1. Shanxi Normal University, Taiyuan, China; 2. Tsinghua University, Beijing, China; 3. Ningbo Institute of Material Technology and Engineering, Chinese Academy of Sciences, Ningbo, China*
View Digest Text

CP-05. **Hubbard U correction and long-range exchange interactions in CrXY monolayers (X, Y ∈ {S, Se, Te}).** *L. Vojáček*[1], F. Ibrahim[1], J. Li[2] and M. Chshiev[1,3] *1. CEA-SPINTEC, Grenoble, France; 2. LETI, Grenoble, France; 3. IUF, Paris, France*
View Digest Text

CP-06. **Spin-to-charge current conversion and charge transfer dynamics in graphene/WS_2 heterostructures.** *R.O. da Cunha*[1], Y. Garcia-Basabe[2], D.G. Larrude[3], M. Gamino[4], E.N. Lima[5,6], F.C. de Lima[5], A. Fazzio[5], A. Azevedo[7], S.M. Rezende[7] and J.B. Mendes[1] *1. Departamento de Física, Universidade Federal de Viçosa, Viçosa, Brazil; 2. Centro Interdisciplinar de Ciências da Natureza, Universidade Federal da Integração Latino-Americana, Foz do Iguaçu, Brazil; 3. Escola de Engenharia, Universidade Presbiteriana Mackenzie, São Paulo, Brazil; 4. Departamento de Física, Universidade Federal do Rio Grande do Norte, Natal, Brazil; 5. Ilum School of Science, Brazilian Center for Research in Energy and Materials (CNPEM), Campinas, Brazil; 6. Instituto de Física, Universidade Federal de Mato Grosso, Cuiabá, Brazil; 7. Departamento de Física, Universidade Federal de Pernambuco, Recife, Brazil*
View Digest Text

CP-07. **Enhancement of thermal stability in heterostructures base on Weyl semimetal WTe_2.** *Y. Wang*[1], W. Li[1], L. Zhang[2] and Y. Feng[1] *1. School of Physics, Dalian University of Technology, Dalian, China; 2. School of Chemical Engineering, Dalian University of Technology, Dalian, China*
View Digest Text

CP-09. **Arpes studies on weyl semimetal candidate PrAl(Ge,Si).** K.R. Pakuszewski[1], *A.P. Machado*[1], J.C. Souza[2], M. Piva[3], V. Brousseau-Couture[4], M. Côté[4], P. Pagliuso[1], W. Simões e Silva[5] and C. Adriano[6] *1. Instituto de Física Gleb Wataghin, University of Campinas, Campinas, Brazil; 2. Department of Condensed Matter Physics, Weizmann Institute Of Science, Rehovot, Israel; 3. Max Planck Institute for Chemical Physics of Solids, Dresden, Germany; 4. Université de Montréal, Montreal, QC, Canada; 5. Centro Nacional de Pesquisa em Energias e Materiais, Campinas, Brazil; 6. Université de Sherbrooke, Sherbrooke, QC, Canada*
View Digest Text

CP-10. **Proximity Induced Artificial Magnetic Graphene As An Electrode for Magnetic Tunnel Junctions.** *J. Peiro*[1], V. Zatko[1], F. Brunnett[1], R. Galceran[1], M. Galbiati[1], F. Godel[1], L. Kern[1], D. Perconte[1], F. Ibrahim[2], A. Hallal[2], M. Chshiev[2], B. Martinez[3], C. Frontera[3], L. Balcells[3], P. Kidambi[4], J. Robertson[5], S. Hoffman[5], S. Collin[1], F. Petroff[1], M. Martin[1], B. Dlubak[1] and P. Seneor[1] *1. Laboratoire Albert Fert, CNRS, Thales, Université Paris-Saclay, Palaiseau, France; 2. CEA-SPINTEC, Grenoble, France; 3. ICMAB-CSIC, Bellaterra, Spain; 4. Department of Chemical and Biomolecular Engineering, Vanderbilt University, Nashville, TN, United States; 5. Department of Engineering, University of Cambridge, Cambridge, United Kingdom*
View Digest Text

CP-11. **Spin transfer torque (STT) in graphene interface structures: the emergence of STT-van der Waals tunneling junctions (2DMTJs).** *J. Hong*[1], J. Lu[2] and P. Zhang[2] *1. UC Berkeley, Berkeley, CA, United States; 2. Hubei University of Technology, Wuhan, China*
View Digest Text

CP-12. **TMD Engineering of 2D-Magnetic Tunnel Junctions – From Barriers to Electrodes.** *F. Brunnett*[1], H. Wei[1], J. Peiro[1], V. Zatko[1], S.M. Dubois[2], M. Galbiati[1], F. Godel[1], E. Carré[1], M. Och[3], C. Mattevi[3], F. Fossard[4], J. Mérot[4], A. Loiseau[4], J. Charlier[2], M. Martin[1], B. Dlubak[1] and P. Seneor[1] *1. Laboratoire Albert Fert – CNRS, Thales, Université Paris-Saclay, Palaiseau, France; 2. Institute of Condensed Matter and Nanosciences (IMCN),Université Catholique de Louvain, 1348 Louvain-la-Neuve, Belgium; 3. Department of Materials, Imperial College, London, United Kingdom; 4. Laboratoire d'Etude des Microstructures - ONERA, Châtillon, France*
View Digest Text

Session CQ
MAGNETORESISTANCE AND RELATED PHENOMENA I (Poster Session)

Jakub Zelezny, Chair
FZU - Institute of Physics, Czech Academy of Sciences, Prague, Czechia

CQ-01. **Spin injection, spin filtering and spin-photon interfacing in III-V semiconductor nanostructures.** Y. Huang[1], V. Polojärvi[2], S. Hiura[3], P. Höjer[1], A. Aho[2], R. Isoaho[2], T. Hakkarainen[2], M. Guina[2], S. Sato[3], J. Takayama[3], A. Murayama[3], I.A. Buyanova[1] and *W.M. Chen*[1] *1. Linköping University, Linköping, Sweden; 2. Tampere University, Tampere, Finland; 3. Hokkaido University, Sapporo, Japan*
View Digest Text

CQ-02. **Withdrawn**

CQ-03. **Thermomagnetic Conversion in Ni89Fe11/Pt Multilayer Grown onto PVDF Flexible Polymer Substrates.** A. de Morais[1,2], C.M. Valença[2], *J.M. de Oliveira*[2], F. Bohn[2], A. Ferreira[3], C.A. Costa[3], F. Vaz[3] and M.A. Correa[2] *1. Department of Materials Engineering, Federal University of Rio Grande do Norte, Natal, Brazil; 2. Department of Physics, Federal University of Rio Grande do Norte, Natal, Brazil; 3. Physics Department, University of Minho, Braga, Portugal*
View Digest Text

CQ-04. **Anomalous Nernst effect on NiFe film grown onto ceramic ribbons substrate.** *J.M. de Oliveira*[1], A. de Morais[1], N.L. de Siqueira[1], J.O. Rodriguez[1], M.R. Delmonte[1], F. Bohn[1] and M.A. Correa[1] *1. Departamento de Física Teórica e Experimental, Universidade Federal do Rio Grande do Norte, Natal, Brazil*
View Digest Text

CQ-05. **Mn/Co Substitution Effect on Magnetoelectric and Structural Properties of ZnO Nanostructures Prepared by DC-Magnetron co-Sputtering For Spintronic Applications.** Á.P. Lanchero D.[1], L.F. Prieto R.[1], H.P. Quiroz[1], J.A. Calderón[1,2], *A. Dussan Cuenca*[1] and F. Mesa[3] *1. Department of Physics, Universidad Nacional de Colombia, Bogotá, Colombia; 2. Engineering and Basic Science Faculty, Universidad Central, Bogotá, Colombia; 3. Engineering and Basic Science Faculty, Universidad Los Libertadores, Bogotá, Colombia*
View Digest Text

CQ-06. **Influence of ferromagnetic coupling in $Fe_{85}Co_{15}$/Py bilayers on the ISHE voltage generated by spin pumping.** *Á.A. Pérez Martínez*[1,2], D. Velázquez[1,2], D. Goijman[2], T.E. Torres[1], A. Butera[1,2] and J. Milano[1,2] *1. Magnetic Resonance Laboratory, Instituto de Nanociencias y Nanotecnología (CNEA - CONICET), San Carlos de Bariloche, Argentina; 2. Instituto Balseiro, Universidad Nacional de Cuyo (UNCuyo), Río Negro, Argentina*
View Digest Text

CQ-07. **Development of Interdented Devices for Surface Acoustic Waves (SAW) applied to Magnonics.** *M.S. de Lacerda*[1], L. Sampaio[1] and J.P. Sinnecker[1] *1. Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, Brazil*
View Digest Text

CQ-08. **Colossal superconducting spin-valve effect in superconductor-non-magnetic metal heterostructures.** *A. Paschoa*[1], J.L. Gonzalez[1], V. Nascimento[1] and E.C. Passamani[1] *1. Departamento de Física, Universidade Federal do Espírito Santo (UFES), Vitória, Brazil*
View Digest Text

CQ-09. **Inverse spin hall and spin rectification voltage in NiFe/IrMn exchange-biased multilayer.** A.R. Syed[1], D. Gonzalez-Chavez[1], R. Dutra[1], D.S. da Rosa[1], R.L. Sommer[1], A.H. de Oliveira[2], J.N. Rigue[2] and *R.B. da Silva*[2] *1. Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, Brazil; 2. Physics Department, Federal University of Santa Maria, Santa Maria, Brazil*
View Digest Text

CQ-10. **Giant spin-to-charge conversion in $Gn_{(1-x)}Sn_x$ alloying.** *R. Rodriguez*[1], S. Oyarzún[2], C. Gonzalez-Fuentes[1], F. Pezzoli[3] and M. Jamet[4] *1. Facultad de Física, Pontificia Universidad Católica de Chile, Santiago, Chile; 2. Facultad de Física, Universidad de Santiago, Santiago, Chile; 3. LNESS, Milano, Italy; 4. Univ. Grenoble Alpes, Grenoble, France*
View Digest Text

CQ-11. **Local and non-local magnetoresistance in ferromagnetic spin valves.** *I.R. Greca*[1], J.B. Mendes[1] and R.O. da Cunha[1] *1. Departamento de Física, Universidade Federal de Viçosa, Viçosa, Brazil*
View Digest Text

CQ-12. **Theory of Pressure-Induced Negative-Positive Magnetoresistance Crossover Near Metal-Insulator Transition in $La_{0.8}Ag_{0.1}MnO_3$.** *Z. Alisultanov*[1,2] *1. Moscow Institute of Physics and Technology (State University), Moscow, Russian Federation; 2. Amirkhanov Institute of Physics of DFRC of RAS, Makhachkala, Russian Federation*
View Digest Text

CQ-13. **Nanodomes substrates as a tool for tuning the magnetoelectro properties of a Co-based pseudo spinvalve.** *E.O. Burgos Parra*[2.1], J. Hermosilla[1], J.L. Palma[3], J.C. Denardin[1] and S. Oyarzún[1] *1. Physics Department, Universidad de Santiago de Chile, Santiago, Chile; 2. Physics Department, Universidad de Chile, Santiago, Chile; 3. Universidad Central de Chile, Santiago, Chile*
View Digest Text

CQ-14. **Efficiency of Spin-Transfer Torque Assist Spin-Orbit Torque Magnetization Switching Under In-plane External Field Application.** *D. Pan*[1], D. Oshima[1] and T. Kato[1] *1. Nagoya University, Nagoya, Japan*
View Digest Text

Session CR
MAGNONICS AND RELATED PHENOMENA (Poster Session)

Philippe Talatchian, Chair
CEA-SPINTEC, Grenoble, France

CR-01. **Reconfigurable Magnonics in Santa Fe Ice.** *A. Mondal*[1] and A. Barman[1,2] *1. Technical Research Centre, S. N. Bose National Centre for Basic Sciences, Salt Lake City, India; 2. Condensed Matter and Materials Physics, S. N. Bose National Centre for Basic Sciences, Salt Lake City, India*
View Digest Text

CR-02. **In-Plane Magnon Valve Effect in Magnetic Insulator/ Heavy Metal/ Magnetic Insulator Device.** *T. Zhang*[1], C. Wan[1,2] and X. Han[1,2,3] *1. Institute of Physics, Chinese Academy of Science, Beijing, China; 2. University of Chinese Academy of Sciences, Beijing, China; 3. Songshan Lake Materials Laboratory, Dongguan, China*
View Digest Text

CR-03. **Spin Pumping into Superconductors: Influence of Spin-Orbit Coupling and Alloy Composition.** *M. Raboni Ferreira*[1,2], R. Torrao Victor[3], D. do Carmo[2], R. Donizeth dos Reis[2], F. Garcia[3,2] and N. Marques de Souza Neto[2] *1. "Gleb Wataghin" Institute of Physics, University of Campinas, Campinas, Brazil; 2. Brazilian Synchrotron Light Laboratory, Brazilian Center for Research in Energy and Materials, Campinas, Brazil; 3. Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, Brazil*
View Digest Text

CR-04. **Magnon energy renormalization in yttrium iron garnet.** *E. Souza*[1], D.S. Maior[1] and S.M. Rezende[1] *1. Departamento de Física, Universidade Federal de Pernambuco, Recife, Brazil*
View Digest Text

CR-05. **Self-Generation of Spatiotemporal Parametric Patterns in Active Ring Resonators Based on Single- and Bicomponent Magnonic Quasicrystals.** *A. Bir*[1], S.V. Grishin[1], D. Romanenko[1] and S. Nikitov[2,1] *1. Saratov State University, Saratov, Russian Federation; 2. Kotelnikov Institute of Radioengineering and Electronics of Russian Academy of Science, Moscow, Russian Federation*
View Digest Text

CR-07. **Spin waves in magnetic films: Micromagnetic simulations results in frequency and reciprocal space.** *A.Y. Requejo*[1], G.P. Zamudio[2], B.R. Pujada Bermudez[1], R.L. Sommer[2] and D. Gonzalez-Chavez[2] *1. Faculty of Science, Universidad Nacional de Ingenieria, Chorrillos, Peru; 2. Centro Brasileiro de Pesquisas Físicas, Rio de Janeiro, Brazil*
View Digest Text

CR-08. **Analytical Calculations of Electron's Phase Shift Due to Interactions with Magnetized Materials.** *G.K. Soares*[1] and D. Muraca[1] *1. DEQ, Universidade Estadual de Campinas, Campinas, Brazil*
View Digest Text

Session CS
SOFT MAGNETIC MATERIALS: AMORPHOUS, CRYSTALLINE AND NANOCRYSTALLINE (Poster Session)

Paola Tiberto, Co-Chair
INRIM, Torino, Italy
Arkady Zhukov, Co-Chair
Basque Foundation for Science, San Sebastian, Spain

CS-01. **Magnetic Domain Walls in Rapidly Solidified Magnetostrictive and Non-Magnetostrictive Submicron Amorphous Wires.** *T.A. Ovari*[1], G. Ababei[1], G. Stoian[1], S. Corodeanu[1], H. Chiriac[1] and N. Lupu[1] *1. National Institute of Research and Development for Technical Physics, Iasi, Romania*
View Digest Text

CS-02. **Exploring the Structural and Functional Frontiers of Nanocrystalline NANOMET-Based Metallic Glasses.** *H. Yim*[1] *1. Department of Applied Physics, Sookmyung University, Seoul, The Republic of Korea*
View Digest Text

CS-03. **Amorphous magnetic Zn-Co alloys.** J.P. Pereira[1], A.O. Guimarães[2] and *M.J. Pires*[1] *1. Instituto de Ciência e Tecnologia, Universidade Federal dos Vales do Jequitinhonha e Mucuri, Diamantina, Brazil; 2. Universidade Estaual do Norte Fluminense, Campos dos Goytacazes, Brazil*
View Digest Text

CS-04. **Non-uniform Gd distribution and magnetization profile within 'nominally uniform' GdCoFe alloy thin film.** O. Inyang[1], C. Swindells[2], D. Rianto[1], L. Bouchenoire[3,4], R. Morris[5], A. Merkulov[5], A. Caruana[6], C. Kinane[6], *T. Hase*[7,4] and D. Atkinson[1] *1. Department of Physics, Durham University, Durham, United Kingdom; 2. Department of Materials Science and Engineering, University of Sheffield, Sheffield, United Kingdom; 3. Department of Physics, University of Liverpool, Liverpool, United Kingdom; 4. XMaS Beamline, Grenoble, France; 5. IMEC, Leuven, Belgium; 6. ISIS Neutron and Muon Source, Didcot, United Kingdom; 7. Department of Physics, University of Warwick, Coventry, United Kingdom*
View Digest Text

CS-05. **Magnetic properties of novel $TmFe_{1-x}Co_xO_3$ perovskites.** *M.E. Vivas Arellano*[1], F. Lurgo[2], J. De Paoli[1], R. Carbonio[1] and R. Sanchez[2] *1. Departamento de Fisicoquímica, Universidad Nacional de Córdoba, Córdoba, Argentina; 2. INN-CNEA-CONICET, Bariloche, Argentina*
View Digest Text

CS-06. **Synthesis of NiFe2O4/NiFe Nanocomposites: Structural and Magnetic Study.** M.S. Nunes[1], I. Bezerra[1], J. Lima[1], R. Checca[2], A. Paesano Jr.[1], J. de Araújo[1] and *M. Morales Torres*[1] *1. Department of Physics, Federal University of Rio Grande do Norte, Natal, Brazil; 2. Brazilian Center for Research in Physics, Rio de Janeiro, Brazil*
View Digest Text

Now VP14-19

CS-07. **Effective magnetic anisotropy of $Ni_xCo_{1-x}Fe_2O_4$ nanoparticles.** *L.J. Dalla Costa*[1], M.R. Freitas[2], G.L. Gouveia[2], R.H. Kiminami[2], A.J. de Oliveira[1] and A.J. Gualdi[1]
1. Department of Physics, Universidade Federal de São Carlos, São Carlos, Brazil; 2. Department of Materials Engineering, Federal University of São Carlos, São Carlos, Brazil
View Digest Text

CS-09. **Influence of Electromagnetic Stirring During the Solidification on the Structure and Magnetic Properties of 2% Si Electrical Steel.** *F.G. Toledo Junior*[2,1], S. da Costa Paolinelli[3], J.R. Oliveira Junior[1] and D.L. Rocco[2]
1. Research Center, Aperam South America, Timoteo, Brazil; 2. Department of Materials Engineering, Federal Center Technological Education of Minas Gerais, Timoteo, Brazil; 3. Paolinelli Electrical Steels Consultancy Ltda, Carmopolis, Brazil
View Digest Text

CS-11. **Mapping the Magnetic Properties of Polycrystalline $CeCrGe_3$ Using Macroscopic and Microscopic Techniques.** *B.S. Corrêa*[1], B.B. Santos[2], E.L. Correa[2], G.A. Cabrera-Pasca[3], W.L. Ferreira[1], A. A. Miranda[1], T. da Silva Nascimento Sales[1], L. Scalise[1], R.N. Saxena[1] and A.W. Carbonari[1] *1. CERPQ, Instituto de Pesquisas Energéticas e Nucleares, São Paulo, Brazil; 2. NIST Center for Neutron Research, Gaithersburg, MD, United States; 3. Faculdade de Ciências Exatas e Tecnologia, Universidade Federal do Pará, Abaetetuba, Brazil*
View Digest Text

CS-13. **Effect of sheet thickness on the Excess Loss of Non-oriented Electrical Steel.** *N.A. Rodrigues*[1] and F. Landgraf[1]
1. Departamento de Engenharia Metalúrgica e de Materiais, Universidade de São Paulo, São Paulo, Brazil
View Digest Text

CS-14. **Analysis of Cutting Effect on Non-Grain Oriented Steels for High-Frequency Applications.** R.F. de Medeiros[1], O.T. Alves[1], *E.M. Alves*[2], G.A. Mendonça[2], N. Sadowski[1] and N.J. Batistela[1] *1. Departamento de Engenharia Elétrica e Eletrônica, Universidade Federal de Santa Catarina, Florianópolis, Brazil; 2. Research Center, Aperam South America, Timóteo, Brazil*
View Digest Text

CS-15. **Effect of dew point on the microstructure and magnetic properties of non-grain oriented electrical steel during stress relief annealing.** *E.M. Alves*[1,2], C.C. Silveira[1], F. Landgraf[2] and M.M. Cesar[3] *1. Research Center, Aperam South America, Timoteo, Brazil; 2. Polytechnic School, University of Sao Paulo, São Paulo, Brazil; 3. MGRMELO Consultoria Ltda, Timoteo, Brazil*
View Digest Text

CS-16. **Influence of energy density on the microstructure, growth orientation, and anisotropy of magnetic properties in additively manufactured Fe-3.8wt%Si transformer steels.** *S.M. Varahabhatla*[1,2], M. Nartu[1,2,3], S.A. Mantri[1,2], V. Chaudhary[4], M. Karri[1,2], S. Joshi[1,2], R. Ramanujan[5], N.B. Dahotre[1,2] and R. Banerjee[1,2] *1. Center for Agile and Adaptive Additive Manufacturing (CAAAM), University of North Texas, Denton, TX, United States; 2. Department of Materials Science and Engineering, University of North Texas, Denton, TX, United States; 3. Nuclear Sciences Division, Pacific Northwest National Laboratory, Richland, WA, United States; 4. Industrial and Materials Science, Chalmers University of Technology, Gothenburg, Sweden; 5. School of Materials Science and Engineering, Nanyang Technological University, Nanyang, Singapore*
View Digest Text

ASIA

Session PL
IEEE AWARD CEREMONY & PLENARY SESSION

Rubem L. Sommer, Co-Chair
CBPF, Rio de Janeiro, Brazil
Mingzhong Wu, Co-Chair
Northeastern University, Boston, MA, United States

5:00

PL-01. **Advances in Orbitronics: Giant Torques from Orbital Textures at Interfaces, Light-induced Orbital Currents for TeraHz Emission.** ***(Invited)*** *A. Fert*[1] *1. Laboratoire Albert Fert, CNRS, Thales, Université Paris-Saclay, Palaiseau, France*
View Digest Text

6:00

PL-02. **Spintronics: Fundamentals and Some Recent Advances** ***(Invited)*** *S. Rezende*[1] *1. Departamento de Física, , Universidade Federal de Pernambuco, Recife, Brazil*
View Digest Text

Session DA
MAGNETIC TUNNEL JUNCTION AND QUANTUM DEVICES FOR UNCONVENTIONAL COMPUTING

Nathan Satchell, Co-Chair
Texas State University, San Marcos, TX, United States
Guohan Hu, Co-Chair
IBM, Yorktown Heights, NY, United States

8:30

DA-01. **Probabilistic Computing with p-bits: Optimization, Machine Learning and Quantum Simulation.** ***(Invited)***
K. Camsari[1] 1. University of California, Santa Barbara, Santa Barbara, CA, United States
View Digest Text

9:00

DA-02. **An easy-plane anisotropy dominant stochastic magnetic tunnel junction as a circuit entropy source.** ***(Invited)***
J.Z. Sun[1] 1. IBM Research, Yorktown Heights, NY, United States
View Digest Text

9:30

DA-03. **Stochastic Actuated Perpendicular Magnetic Tunnel Junctions for True Random Number Generation and Monte-Carlo Modeling.** ***(Invited)*** *A.D. Kent[1] 1. Department of Physics, New York University, New York, NY, United States*
View Digest Text

10:00

DA-04. **Physics and engineering of stochastic magnetic tunnel junction devices for probabilistic computing.** ***(Invited)***
S. Kanai[1] 1. Research Institute of Electrical Communication, Tohoku University, Sendai, Japan
View Digest Text

10:30

DA-05. **Ising Computer Based on Superparamagnetic Tunnel Junctions.** ***(Invited)*** *J. Si*[1], S. Yang[2] and H. Yang[2]
1. Peking University, Beijing, China; 2. National University of Singapore, Singapore
View Digest Text

11:00

DA-06. **Emergent magnetism for quantum information.** ***(Invited)***
C. Panagopoulos[1] *1. Division of Physics and Applied Physics, Nanyang Technological University, Singapore*
View Digest Text

OCEANIA VI & VII

Session DB
MAGNONICS III: BAND PROPERTIES AND DEVICES
Pawel Gruszecki, Chair
Uniwersytet im Adama Mickiewicza w Poznaniu, Poznan, Poland

8:30

DB-01. **Brillouin Light Scattering investigation of spin-wave dynamics in reconfigurable magnonic systems.** ***(Invited)***
S. Tacchi[1] *1. Istituto Officina dei Materiali, Consiglio Nazionale delle Ricerche, Perugia, Italy*
View Digest Text

9:00

DB-02. **Flat bands and compact localized states in magnonic crystals.** *J.W. Klos*[1] and G. Centala[1] *1. ISQI, Faculty of Physics, Adam Mickiewicz University, Poznan, Poland*
View Digest Text

9:15

DB-03. **3D Ferromagnetic Nanoarchitectures with Lattice-Size dependent Magnon Modes.** *H. Guo*[1], M. Xu[1], A.J. Deenen[1] and D. Grundler[1,2] *1. IMX, EPFL, Lausanne, Switzerland; 2. IEM, EPFL, Lausanne, Switzerland*
View Digest Text

9:30

DB-04. **Opening complete band gaps in two-dimensional magnonic crystals using yttrium iron garnets and non-magnetic metals.** *K. Mori*[1,2], T. Koguchi[1,2], T. Watanabe[3], Y. Yoshihara[1,2], H. Miyashita[1,2], M. Inoue[1], D. Grundler[4], K. Ishiyama[1] and T. Goto[1] *1. RIEC, Tohoku University, Sendai, Japan; 2. Graduate School of Engineering, Tohoku University, Sendai, Japan; 3. Shin-Etsu Chemical Co., Ltd, Annaka, Japan; 4. Institute of Electrical and Micro Engineering, Ecole Polytechnique Federale de Lausanne (EPFL), Lausanne, Switzerland*
View Digest Text

9:45

DB-05. **Magnon-magnon coupling in an antidot lattice with perpendicular magnetic anisotropy.** *M. Moalic*[1], M. Krawczyk[1], M.K. Zelent[1] and K. Szulc[1] *1. Uniwersytet im Adama Mickiewicza w Poznaniu, Poznan, Poland*
View Digest Text

10:00

DB-06. **Universal magnonic machine-learning module.** *N. Zenbaa*[1,2], C. Abert[1], F. Majcen[1], M. Kerber[1], R. Serha[1,2], S. Knauer[1], Q. Wang[3], T. Schrefl[4], D. Suess[1] and A. Chumak[1] *1. Faculty of Physics, University of Vienna, Vienna, Austria; 2. Vienna Doctoral School of Physics, University of Vienna, Vienna, Austria; 3. School of Physics, Huazhong University of Science and Technology, Wuhan, China; 4. Center for Modelling and Simulation, Donau-Universität Krems, Wiener Neustad, Austria*
View Digest Text

10:15

DB-07. **Reconfigurable Magnon-based Radio Frequency filters.** *A. Del Giacco*[1], F. Kohl[2], A. Toniato[1], M. Wagner[2], F. Maspero[1], A. Cattoni[1], P. Pirro[2] and R. Bertacco[1] *1. Department of Physics, Politecnico di Milano, Milano, Italy; 2. Nanoscaled Magnonic Hybrids, Rheinland-Pfälzische Technische Universität Kaiserslautern-Landau, Kaiserslautern, Germany*
View Digest Text

10:30

DB-08. **All-magnonic repeater based on bistability.** *Q. Wang*[1,2], R.V. Verba[3], K. Davídková[2,4], B. Heinz[5], S. Tian[6], Y. Rao[6], X. Ge[1], O. Wojewoda[4], C. Dubs[7], M. Urbánek[4], P. Pirro[5] and A. Chumak[2] *1. Huazhong University of Science & Technology, Wuhan, China; 2. Universitat Wien, Vienna, Austria; 3. Institute of Magnetism, Kyiv, Ukraine; 4. Brno University of Technology, Brno, Czechia; 5. Rheinland-Pfälzische Technische Universität Kaiserlautern-Landau, Kaiserslautern, Germany; 6. Hubei University, Wuhan, China; 7. INNOVENT e.V., Technologieentwicklung, Jena, Germany*
View Digest Text

10:45

DB-09. **Arbitrary Two-Qubit Magnon-Mediated Quantum Gates.** *C. Trevillian*[1] and V. Tyberkevych[1] *1. Department of Physics, Oakland University, Rochester Hills, MI, United States*
View Digest Text

OCEANIA IX & X

Session DC
PATH TOWARDS MORE SUSTAINABLE TOMORROW – MAGNETIC SOLUTIONS

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

8:30

DC-01. **Challenges Electrical Mobility and Wind Energy Present to Magnetic Materials.** ***(Invited)*** *F. Landgraf*[1] *1. University of São Paulo, São Paulo, Brazil*
View Digest Text

9:00

DC-02. **Availing Highly-saturable Advanced Soft Magnetic Materials for Rotating Machines.** ***(Invited)*** *P. Upadhyay*[1] *1. Anduril Industries, Costa Mesa, CA, United States*
View Digest Text

9:30

DC-03. **A Comparative Study between Permanent-magnet-free Reluctance Machines for Heavy-duty Electric Vehicles.** ***(Invited)*** *D. Ceylan*[1] and K.O. Boynov[1] *1. Department of Electrical Engineering, Eindhoven University of Technology, Eindhoven, Netherlands*
View Digest Text

10:00

DC-04. **PM-Free Axial-Flux Motors for Transport Electrification.** ***(Invited)*** *A. Mahmoudi*[1], Z. Cao[1], S. Kahourzade[2] and W. Soong[3] *1. Flinders University, Adelaide, SA, Australia; 2. University of South Australia, Adelaide, SA, Australia; 3. The University of Adelaide, Adelaide, SA, Australia*
View Digest Text

10:30

DC-05. **Potential of Wave Energy Harvesting in the North Sea; The AE-WaveHexapod WEC.** ***(Invited)*** *J.J. Paulides*[1,2], R. Shenoi[2], F. Van Bodegraven[2], L. Nijman[2], R. Jonkman[1], L. Encica[1] and P. Wellens[3] *1. R&D, Advanced Electromagnetics Group, Waalwijk, Netherlands; 2. R&D, AE-WaveHexaPod, Dordrecht, Netherlands; 3. Ship Hydromechanics and Structures, Delft University of Technology, Delft, Netherlands*
View Digest Text

11:00

DC-06. **AI-based Fault Diagnosis for Electric Machines.** ***(Invited)***
S. Huang[1], Y. Lu[1] and *M. Hsieh*[1] *1. National Cheng Kung University, Tainan, Taiwan*
View Digest Text

OCEANIA I & II

Session DD
BIOMAGNETICS I

Ahmed El-Gendy, Co-Chair
The University of Texas at El Paso, El Paso, TX, United States
Bethanie Stadler, Co-Chair
University of Minnesota, Minneapolis, MN, United States

8:30

DD-01. **Unveiling the Influence of Interactions in the Behavior of Magnetic Nanoparticle Agglomerates: Experiments and Simulations.** ***(Invited)*** *D. Valdes*[1,2], T.E. Torres[3], A.C. Moreno Maldonado[3], G. Urretavizcaya[2,4], M.S. Nadal[1], M. Vasquez Mansilla[1,2], I. Rodrigo[5], I. Orue[6], R.D. Zysler[1,2], J. García[7], F. Plazaola[7], G.F. Goya[3], E. De Biasi[1,2] and E. Lima Jr.[1] *1. Instituto de Nanociencia y Nanotecnología (INN), CNEA-CONICET, Bariloche, Argentina; 2. Instituto Balseiro, Universidad Nacional de Cuyo, Bariloche, Argentina; 3. Instituto de Nanociencia y Materiales de Aragón (INMA), CSIC-Universidad de Zaragoza, Zaragoza, Spain; 4. Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), CNEA, Bariloche, Argentina; 5. Departamento de Física Aplicada, Escuela de Ingeniería de Gipuzkoa - Eibar, Universidad del País Vasco/Euskal Herriko Unibertsitatea (UPV/EHU), Eibar, Spain; 6. SGIker, Servicios Generales de Investigación, Universidad del País Vasco/Euskal Herriko Unibertsitatea (UPV/EHU), Leioa, Spain; 7. Universidad del País Vasco/Euskal Herriko Unibertsitatea (UPV/EHU), Leioa, Spain*
View Digest Text

9:00

DD-02. **Multifunctional materials for the applications from electronics to biosensors.** *J. Hong*[1] and X. Song[2]
1. UC Berkeley, Berkeley, CA, United States;
2. Hubei University of Technology, Wuhan, China
View Digest Text

9:15

DD-03. **Cellular Interaction with Low-Frequency-Vibrating Magnetic Nanoparticles in Bio-Mimetic Mechanical Environment.** *A. Visonà*[1,2], B. Dieny[2], R. Morel[2], H. Joisten[2], S. Soulan[1] and A. Nicolas[1] *1. LTM CNRS, Grenoble, France; 2. CEA-SPINTEC, Grenoble, France*
View Digest Text

9:30

DD-04. **Restoring cryopreserved bio-specimens using magnetic nanobars.** ***(Invited)*** *B. Stadler*[1,2], R. Kolisnyk[1], A. Harpel[2], Y. Chen[2] and R. Franklin[1] *1. Department of Electrical and Computer Engineering, University of Minnesota, Minneapolis, MN, United States; 2. Department of Chemical Engineering and Materials Science, University of Minnesota, Minneapolis, MN, United States*
View Digest Text

10:00

DD-05. **Multiplanar Imaging with a Single-Sided MPI Scanner.** C. McDonough[1], J. Chrisekos[1] and *A. Tonyushkin*[1]
1. Physics Dept, Oakland University, Rochester, MI, United States
View Digest Text

10:15

DD-06. **MRI Pulse Sequence for Quantifying Magnetic Nanoparticles from Highly Distorted Static Field: View Line.** S. Liu[1], W. Qiu[1], G. Della Maggiora[2], A. Kuwahata[3], P. Irarrazaval[2] and *M. Sekino*[1] *1. The University of Tokyo, Tokyo, Japan; 2. Pontificia Universidad Católica de Chile, Santiago, Chile; 3. Tohoku University, Sendai, Japan*
View Digest Text

10:30

DD-07. **Magnetic Particle Spectroscopy (MPS)-based Bioassays.** ***(Invited)*** K. Wu[1,2], V.K. Chugh[2], V.D. Krishna[3], A. di Girolamo[2], Y.A. Wang[4], M.C. Cheeran[3] and *J. Wang*[2] *1. Department of Electrical and Computer Engineering, Texas Tech University, Lubbock, TX, United States; 2. Department of Electrical and Computer Engineering, University of Minnesota, Minneapolis, MN, United States; 3. Department of Veterinary Population Medicine, University of Minnesota, St. Paul, MN, United States; 4. Ocean Nano Tech LLC, San Diego, CA, United States*
View Digest Text

11:00

DD-08. **Development of Transcranial Magnetic Stimulator Coils Achieving Physically the Deepest Stimulation Based on the Inverse Problem Approach.** *A. Iino*[1], M. Fushimi[1], J. Tabata[2], T. Kikuchi[2], Y. Soejima[2], M. Wada[3], S.L. Nakajima[3], Y. Noda[3] and M. Sekino[1] *1. Department of Bioengneering, The University of Tokyo, Hongo, Japan; 2. Department of Electrical Engineering and Information Systems, The University of Tokyo, Hongo, Japan; 3. Department of Neuropsychiatry, Keio University, Shinanomachi, Japan*
View Digest Text

11:15

DD-09. **Measurement of Somatosensory Evoked Response of Rats towards Noninvasive and High-Resolution Functional Brain Mapping of Small Animals.** *M. Fushimi*[1], S. Chikaki[1], S. Funatani[1] and M. Sekino[1] *1. The University of Tokyo, Tokyo, Japan*
View Digest Text

EUROPA I

Session DE
HARD MAGNETIC MATERIALS I

Pelin Tozman, Chair
Technical Unviesity of Darmstadt, Darmstadt, Germany

8:30

DE-01. **Anosotropic magnetic nanoparticles.** ***(Invited)*** *P. Liu*[1] *1. Department of Physics, University of Texas at Arlington, Colleyville, TX, United States*
View Digest Text

9:00

DE-02. **Study of magnetization reversal and magnetic hardening in SmCo5 single crystal magnets.** *A. Aubert*[1], H. Zhang[1,2], F. Maccari[1], C. Dietz[3], M. Yue[2], O. Gutfleisch[1] and K. Skokov[1] *1. Technische Universitat Darmstadt, Darmstadt, Germany; 2. Faculty of Materials and Manufacturing, Beijing University of Technology, Beijing, China; 3. Physics of Surfaces, TU Darmstadt, Darmstadt, Germany*
View Digest Text

9:15

DE-03. **Data-Mining Search for Crystal Structure Predicted Rare-Earth-Free Permanent Magnets.** *A. Vishina*[1], O. Eriksson[1] and H.C. Herper[1] *1. Uppsala Universitet, Uppsala, Sweden*
View Digest Text

9:30

DE-04. **High-temperature phase transition during hydrogen disproportionation of various Nd-Fe-B alloys.** *F. Orlandini Keller*[1], G. Bacchetta[1], C. Flament[1], L. Magnier[1], C. Delafosse[1], C. Rado[1], S. Luca[1] and J. Garandet[1] *1. Univ. Grenoble Alpes, CEA LITEN, Grenoble 38000, France*
View Digest Text

9:45

DE-05. **Synthesis, processing and magnetic properties of $Fe_{16}N_2$.** *I. Dirba*[1] and O. Gutfleisch[1] *1. Institute of Materials Science, TU Darmstadt, Darmstadt, Germany*
View Digest Text

10:00

DE-06. **Tailoring pressless processing parameters to achieve highly textured Nd-Fe-B recycled magnets.** ***(Invited)*** *M.A. Rosa*[1], E.F. Neves[1], L.T. Quispe[1], L.U. Lopes[1], J.B. Neto[1] and P.A. Wendhausen[1] *1. Federal University of Santa Catarina, Florianópolis, Brazil*
View Digest Text

10:30

DE-07. **Critical Transitions in Rare-Earths Magnets of $(R,R')_2Fe_{14}B$ Type.** *N. Kostyuchenko*[1,2], D. Plokhov[3,2], Y. Kudasov[4,5], I. Tereshina[6], O. Surdin[4,5] and A. Zvezdin[3,2] *1. Moscow Institute of Physics and Technology (State University), Moscow, Russian Federation; 2. Lebedev Physical Institute of the Russian Academy of Sciences, Moscow, Russian Federation; 3. Prokhorov General Physics Institute of Russian Academy of Sciences, Moscow, Russian Federation; 4. Russian Federal Nuclear Center – VNIIEF, Sarov, Russian Federation; 5. Sarov Institute of Physics and Technology, National Research Nuclear University MEPhI, Sarov, Russian Federation; 6. Faculty of Physics, Lomonosov Moscow State University, Moscow, Russian Federation*
View Digest Text

10:45

DE-08. **Crystallographic quantification of magnetic alignment degree for permanent magnet fine powders with high anisotropy field.** *Y. Hirayama*[1], K. Park[1], W. Yamaguchi[1] and S. Okada[1] *1. Innovative Functional Materials Research Institute, National Institute of Advanced Industrial Science and Technology (AIST), Nagoya, Japan*
View Digest Text

11:00

DE-09. **Benefits of Incorporating Dy-Cu Alloy Through the GBD Process for Recycled Magnets.** *M.B. Dias*[1,2], G. Shimizu[2], L. Azevedo[2], D. Rodrigues Jr[2], W.C. Macedo[3], L.F. Antunes[3], L. Ulian Lopes[3], P.A. Wendhausen[3], R. Farias[4], C.A. Lino dos Santos[5], F. Pastrián[5] and F. Landgraf[2] *1. SENAI SP College, Osasco, Brazil; 2. University of São Paulo, São Paulo, Brazil; 3. Federal University of Santa Catarina, Florianópolis, Brazil; 4. Institute for Energy and Nuclear Research, São Paulo, Brazil; 5. Institute of Technological Research, São Paulo, Brazil*
View Digest Text

Session DF
SOFT MAGNETIC ALLOYS: MATERIALS AND METHODS

Del Atkinson, Chair
Durham University, Durham, United Kingdom

8:30

DF-01. **Magnetoelastic resonance mass sensors: the importance of their geometry and nanocrystallization annealing induction.** ***(Invited)*** P. G.Saiz[1,2], A. Lasheras[3], J. Vilas-Vilela[1,2] and *A. Lopes*[1,4] *1. Department of Physical-Chemistry, University of Basque Country, Leioa, Spain; 2. BC Materials-Basque Center for Materials Applications and Nanostructures, Leioa, Spain; 3. Department of Physics, University of the Basque Country, Leioa, Spain; 4. Ikerbasque, Basque Foundation for Science, Leioa, Spain*
View Digest Text

9:00

DF-02. **Measurement of Anisotropy and Magnetoelastic Constants of Thin Crystalline Films by Angle- and Strain-Dependent Ferromagnetic Resonance Spectroscopy.** K. Masood[1], *A. Jander*[1] and P. Dhagat[1] *1. Department of Electrical Engineering and Computer Science, Oregon State University, Corvallis, OR, United States*
View Digest Text

9:15

DF-03. **Magnetic behavior of nanoporous FeCo, fully and partially dealloyed by liquid metal.** *B. Ducharne*[1,2,3], S. Joo[4], P. Geslin[1], E. Wasniewski[5] and H. Kato[2] *1. Institut National des Sciences Appliquees de Lyon, Villeurbanne, France; 2. Tohoku University, Sendai, Japan; 3. ELyTMaX CNRS, Sendai, Japan; 4. Dankook University, Seoul, The Republic of Korea; 5. CETIM, Senlis, France*
View Digest Text

9:30

DF-06. **A Matlab Toolbox for Anhysteretic Magnetization Analysis.** *J.M. Silveyra*[1,2], M.I. González[1], T.F. González[1] and J.M. Conde Garrido[1,2] *1. University of Buenos Aires, Buenos Aires, Argentina; 2. CONICET, Buenos Aires, Argentina*
View Digest Text

9:45

DF-07. **Role of interface roughness in perpendicular magnetic anisotropy of CoFeB/MgO based stacks.** *S. Ahn*[1] *1. POSTECH, Pohang, The Republic of Korea*
View Digest Text

10:00

DF-08. **Magnetic Properties and Applications of Glass-coated Ferromagnetic Microwires.** *V. Zhukova*[1,2,3], P. Corte-Leon[1,3,2], M. Ipatov[1,3], A. García-Gómez[1,2,3], J. Blanco[3,2] and A. Zhukov[4,1,2] *1. Dept. Polymers and Advanced Materials, Univ. Basque Country, UPV/EHU, San Sebastian, Spain; 2. EHU Quantum Center, University of the Basque Country, UPV/EHU, San Sebastian, Spain; 3. EIG, Dept. Applied Physics, University of Basque Country, UPV/EHU, San Sebastian, Spain; 4. Ikerbasque, Basque Foundation for Science, San Sebastian, Spain*
View Digest Text

10:15

DF-09. **How accurate are magnetic loss measurements?** *M. Pasquale*[1], E. Ferrara[1], N. Banu[1], F. Fiorillo[1], L. Rocchino[1], M. Ulvr[2], F. Weickert[3], K. Pfnuer[3], J. Luedke[3], K. Hoffmann[3], S. Harmon[4], D. Brunt[4] and A. Wilson[4] *1. INRIM, Torino, Italy; 2. CMI, Prague, Czechia; 3. PTB, Braunschweig, Germany; 4. NPL, Teddington, United Kingdom*
View Digest Text

10:30

DF-11. **Ferromagnetic behavior induced by structural distortion in pristine g-C_3N_4 pellets prepared via isostatic pressure.** J.R. dos Santos[1], T. de Melo Lima[2], M.W. Paixão[3], A.A. Correa[3], E. Chaves Pereira[3] and *A.J. de Oliveira*[1,4] *1. Departamento de Física, Universidade Federal de São Carlos, São Carlos, Brazil; 2. Departamento de Química Inorgânica, Universidade Federal Fluminense, Niterói, Brazil; 3. Departamento de Química, Universidade Federal de São Carlos, Brazil, Brazil; 4. Instituto de Estudos Avançados e Estratégicos, Universidade Federal de São Carlos, São Carlos, Brazil*
View Digest Text

Session DG
2D SPINTRONICS AND MAGNETISM

Xufeng Zhang, Chair
Northeastern University, Boston, MA, United States

8:30

DG-01. **Observation of octupole-driven magnetoresistance in a chiral antiferromagnetic tunnel junction.** ***(Invited)***
T. Higo[1], X. Chen[2,1], K. Tanaka[1], T. Nomoto[1], H. Tsai[1], H. Idzuchi[1], M. Shiga[3,1], S. Sakamoto[1], H. Kosaki[1], T. Matsuo[4,1], D. Nishio-Hamane[1], R. Arita[1,5], S. Miwa[1] and S. Nakastsuji[1,4] *1. The University of Tokyo, Bunkyo-ku, Japan; 2. University of California, Berkeley, Berkeley, CA, United States; 3. Kyushu University, Fukuoka, Japan; 4. Johns Hopkins University, Baltimore, MD, United States; 5. RIKEN, Wako, Japan*
View Digest Text

9:00

DG-02. **Thermal cycling induced metamorphosis of exchange bias in $MnPS_3/Fe_3GeTe_2$ van der Waals heterostructures.**
A. Puthirath Balan[1], A. Kumar[1], P. Reiser[2], J. Vas[3], T. Denneulin[3], M. Tschudin[2], C. Pellet-Mary[2], D. Dutta[2], C. Schrader[2], T. Scholz[4], J. Geuchies[5], S. Fu[5], H. Wang[5], A. Bonanni[6], B. Lotsch[4], A. Kovács[3], R.E. Dunin-Borkowski[3], P. Maletinsky[2] and M. Kläui[1,7] *1. Institute of Physics, Johannes Gutenberg University, Mainz, Germany; 2. Department of Physics, University of Basel, Basel, Switzerland; 3. Ernst Ruska-Centre for Microscopy and Spectroscopy with Electrons and Peter Grünberg Institute, Forschungszentrum Julich, Julich, Germany; 4. Max Planck Institute for Solid State Research, Stuttgart, Germany; 5. Max Planck Institute for Polymer Research Mainz, Mainz, Germany; 6. Institute of Semiconductor & Solid State Physics, Johannes Kepler University - Linz, Linz, Austria; 7. Department of Physics, Norwegian University of Science and Technology, Trondheim, Norway*
View Digest Text

9:15

DG-03. **Automated mechanical exfoliation technique and spin pumping in YIG/TMD heterostructures.**
L. Sampaio[1], R. Torrao Victor[1], J. Marroquin[3], S. Safeer[1,2], D. Dugato[1], B. Archanjo[4], F. Garcia[1] and J. Felix[3] *1. Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, Brazil; 2. Department of Physics, Quaid-i-Azam University, Islamabad, Pakistan; 3. Instituto de Física, Universidade de Brasília, Brasilia, Brazil; 4. INMETRO, Rio de Janeiro, Brazil*
View Digest Text

9:30

DG-04. **Exploring Magnon–Magnon Coupling, Spin Hall Magnetoresistance, and Laser–Driven Spin Textures in 2D van der Waals Magnets. *(Invited)*** C. Freeman[1,2], M. Dabrowski[3], P.S. Keatley[3], Z. Xue[1], A. Budniak[4], O. Kazakova[2], G. Eda[4], R. Hicken[3], H. Kurebayashi[1] and *M. Cubukcu[1,2] 1. University College London, London, United Kingdom; 2. National Physical Laboratory, Teddington, United Kingdom; 3. University of Exeter, Exeter, United Kingdom; 4. National University of Singapore, Singapore*
View Digest Text

10:00

DG-06. **Above room temperature ferromagnetism in all-epitaxial $Fe_{5-x}GeTe_2$/graphene and $Fe_{5-x}GeTe_2$/WSe_2 van der Waals heterostructures.** *J. J. Lopes*[1], H. Lv[1], J. Herfort[1], M. Hanke[1], C. Chen[2], J.M. Redwing[2], A. Trampert[1], R. Engel-Herbert[1] and M. Ramsteiner[1] *1. Paul-Drude-Institute for Solid State Electronics, Berlin, Germany; 2. 2D Crystal Consortium Materials Innovation Platform, Materials Research Institute, The Pennsylvania State University, University Park, PA, United States*
View Digest Text

10:15

DG-07. **Magnetism and Spin-Orbit Coupling in Iron Chalcogenide Superconductors. *(Invited)*** *Q. Li*[1,2] *1. Department of Physics and Astronomy, Stony Brook University, Stony Brook, NY, United States; 2. Condensed Matter Physics and Materials Sciences Division, Brookhaven National Laboratory, Upton, NY, United States*
View Digest Text

10:45

DG-08. **Magnetism and Excitations in Quasi-2D magnets VBr_3 and VI_3.** *K. Carva*[1], K. Pokhrel[1], D. Hovančík[1] and J. Pospíšil[1] *1. Dept. Condensed Matter Physics, Charles University, Prague, Czechia*
View Digest Text

11:00

DG-09. **Magnetic Properties of Two Dimensional Fe_3GeTe_2 Nanoflakes.** *R. Cardias Alves de Almeida*[1], T. Cysne[1], A. Bergman[2], R. Bechara Muniz[1] and M. Costa[1] *1. Instituto de Física, Universidade Federal Fluminense, Niterói, Brazil; 2. Uppsala University, Uppsala, Sweden*
View Digest Text

Session DP
HIGH-SPEED, WOUND-FIELD, INDUCTION AND RELUCTANCE MACHINES I (Poster Session)

Marco Trapanese, Chair
Palermo University, Palermo, Italy

DP-01. **Computation-Efficient Model Predictive Control Using Sphere Decoding Algorithm for Dual Three-Phase SPMSMs.** Z. Zhang[1], J. Chen[1], R. Han[2], *Y. Wu*[1], Y. Gong[1] and S. Chang[1] *1. Tianjin University, Tianjin, China; 2. Tianjin Navigation Instruments Research Institute, Tianjin, China*
View Digest Text

DP-02. **Study on the Slotless PM Motor Design Process Considering High Speed.** *Y. Lee*[1], K. Kim[2], I. Jang[3], I. Yang[4] and W. Kim[5] *1. Department of Next Generation Energy System Convergence, Gachon University, Gyeonggi-do, The Republic of Korea; 2. Department of Mechanical Automotive and Robot Engineering, Halla University, Wonju, The Republic of Korea; 3. Electric Powertrain Core Technology, Hyundai Mobis, YoungIn, The Republic of Korea; 4. Department of Electrical Engineering, Hanyang University, Seoul, The Republic of Korea; 5. Department of Electrical Engineering, Gachon University, Seongnam, The Republic of Korea*
View Digest Text

DP-03. **Innovative SynRM Rotor Design for Simplified Construction and Enhanced Mechanical Reliability in High-Speed Applications.** *G. Behling da Silveira*[1], R. Petry Homrich[1], I.P. Wiltuschnig[1], A. Ferreira Flores Filho[1], A. Tergolina Salton[1] and P. Eckert[1] *1. Universidade Federal do Rio Grande do Sul (UFRGS), Porto Alegre, Brazil*
View Digest Text

DP-04. **A Comparative Performance Study of High-Speed SynRM and PMa-SynRM Rare-Earth and Rare-Earth-Less Permanent Magnets for Automotive Traction.** *G. Behling da Silveira*[1], I.P. Wiltuschnig[1], R. Petry Homrich[1], A. Ferreira Flores Filho[1], A. Tergolina Salton[1], L. Gonçalves Tobias dos Santos[2], C. de Abreu Soares[2] and P. Eckert[1] *1. Universidade Federal do Rio Grande do Sul (UFRGS), Porto Alegre, Brazil; 2. Mercosul Industria de Motores S.A., Caxias do Sul, Brazil*
View Digest Text

DP-05. **Use of a Ferrofluid in a Magnetic Brake for a Wind Energy Generator.** I.G. Cely Orjuela[1,2], O. Moscoso Londoño[3] and *L.M. Socolovsky*[1,2] *1. Universidad Tecnológica Nacional Facultad Regional Santa Cruz, Rio Gallegos, Argentina; 2. CIT Santa Cruz, CONICET, Rio Gallegos, Argentina; 3. Facultad de Ingeniería, Universidad Autónoma de Manizales, Manizales, Colombia*
View Digest Text

DP-06. **Optimal Design and Experimental Analysis of Rotor Casting Defect Detector.** *K. Lee*[1,2], J. Seo[1,2] and S. Lee[1] *1. Korea Institute of Industrial Technology, Gwangju, The Republic of Korea; 2. Department of Electrical Enginnering, Chungnam National University, Daejeon, The Republic of Korea*
View Digest Text

DP-08. **Enhancing Noise and Vibration Performance for a Traction Squirrel Cage Induction Machine through Rotor Design Optimization.** *P. Song*[1], O. Taqavi[1], Z. Li[1], G. Byczynski[1] and N. Kar[1] *1. Department of Electrical & Computer Engineering, University of Windsor, Windsor, ON, Canada*
View Digest Text

DP-09. **Magnetizing Inductance Estimation Method of Induction Motor for EV Traction Considering Magnetic Saturation Changes According to Current and Slip Frequency.** *D. Park*[1], C. Song[1], Y. Won[1], J. Park[1], H. Kim[1] and M. Lim[1] *1. Hanyang University, Seoul, The Republic of Korea*
View Digest Text

DP-10. **Design of LS-SynRM Rotor for Efficiency Improvement and Torque Ripple Reduction.** *C. Kim*[1], H. Lee[1], J. Lee[2], S. Kim[3] and C. Park[1] *1. Department of Railroad Vehicle & Operation System Engineering, Korea National University of Transportation, Uiwang-si, The Republic of Korea; 2. Department of Railroad Electric Engineering, Korea National University of Transportation, Uiwang-si, The Republic of Korea; 3. Department of Electrical Engineering, Hanyang University, Seoul, The Republic of Korea*
View Digest Text

EXHIBIT HALL

Session DQ
SKYRMIONS AND RELATED PHENOMENA (Poster Session)

Svitlana Kondovych, Chair
Leibniz Institute for Solid State and Materials Research (IFW) Dresden, Dresden, Germany

DQ-01. **Ab initio study of Pd/Fe/Ir(111) bilayers decorated with Co nanostructures.** *J.G. Cornelio Palma*[1], P. Costa Carvalho[1], A.B. Klautau[2,1] and H.M. Petrilli[1] *1. Department of Physics of Materials and Mechanics - Institute of Physics, University of Sao Paulo, São Paulo, Brazil; 2. Department of Physics, Federal University of Pará, Belém, Brazil*
View Digest Text

DQ-02. **Skyrmionic States and Dynamics in Synthetic Antiferro and Ferrimagnets.** *M.V. Correia*[1], J.C. Velásquez[2] and C.C. de Souza Silva[1] *1. Physics Department, Universidade Federal de Pernambuco, Recife, Brazil; 2. Núcleo de Tecnologia - Centro Acadêmico do Agreste, Universidade Federal de Pernambuco, Caruaru, Brazil*
View Digest Text

DQ-03. **Tunable skyrmion nucleation in nanodot arrays.** Y. Zang[1], *W. Griggs*[1], T. Thomson[1] and C. Moutafis[1] *1. The University of Manchester, Manchester, United Kingdom*
View Digest Text

DQ-04. **Application of Artificial Neural Networks for Identification of Skyrmionic Phases on Bidimensional Archimedean Ferromagnetic Lattices.** *J.R. Gomez Quispe*[1], P. Autreto[1], T.W. Milla Robles[2], C. Rojas-Ayala[2] and J. Rojas-Tapia[2] *1. Center of Natural and Human Sciences, Federal University of ABC, Sao Paulo, Brazil; 2. Faculty of Physical Sciences, National University of San Marcos, Lima, Peru*
View Digest Text

DQ-05. **Isolated zero-field skyrmions at ambient conditions in ferrimagnetic Pt/Co_X/Gd heterostructures.** *J. Brandao*[1,2], T.J. Mori[1,2], F. Béron[3] and J.C. Cezar[1,2] *1. Laboratório Nacional de Luz Síncrotron, Campinas, Brazil; 2. Centro Nacional de Pesquisa em Energia e Materiais, Campinas, Brazil; 3. Universidade Estadual de Campinas, Campinas, Brazil*
View Digest Text

DQ-07. **Towards Skyrmion Nucleation on Multilayered Thin Films Over Self-Formed Nanodomes.** F.L. Vital[2,1], D. de Souza Chaves[1], J. Brandao[1], P. Schio[3], F. Béron[2] and *J.C. Cezar*[1,2] *1. LNLS, CNPEM, Campinas, Brazil; 2. IFGW, Unicamp, Campinas, Brazil; 3. LNNANO, CNPEM, Campinas, Brazil*
View Digest Text

DQ-08. **In search of Magnetic Skyrmion Phase in 4d Under-Doped MnSi.** *P. Khandelwal*[1], S. Samatham[2], A. Patel[3] and K.G. Suresh[1] *1. Department of Physics, Indian Institute of Technology Bombay, Mumbai, India; 2. Department of Physics, Chaitanya Bharathi Institute of Technology, Gandipet, Hyderabad, Hyderabad, India; 3. Research Centre for Magnetic and Spintronic Materials, National Institute for Materials Science, Tsukuba, Ibaraki, Ibaraki, Japan*
View Digest Text

DQ-09. **Effects of an Exchange-reducing Defect on a Skyrmion Interaction in Antiferromagnetic Frustrated Films.** *I.F. Sharafullin*[1], D. Abdrakhmanov[1], A. Nugumanov[1] and H.T. Diep[2] *1. Institute of Physics and Technologyes, Ufa State University of Science ant Technology, Ufa, Russian Federation; 2. Laboratoire de Physique Théorique et Modélisation, Cergy-Paris University, Cergy, France*
View Digest Text

DQ-10. **Local Electric-field Control of Skyrmions in Nanostructured Multiferroic Heterostructure.** *Y. Wang*[1], Q. Liu[1], X. Zhang[2], S. Zhang[3], B. He[4], G. Yu[4], H. Piao[2] and Y. Zhao[1] *1. Tsinghua University, Beijing, China; 2. Yanbian University, Yanji, China; 3. National University of Defense Technology, Changsha, China; 4. Chinese Academy of Sciences, Beijing, China*
View Digest Text

DQ-11. **Proximity-induced moment and saturation magnetization reduction in Pt/Co/Hf/Pt multilayers.** D.A. Dugato[1,2], J. Brandao[1], F. Béron[3] and *T.J. Mori*[1] *1. Brazilian Synchrotron Light Laboratory, Brazilian Center for Research in Energy and Materials, Campinas, Brazil; 2. Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, Brazil; 3. Universidade Estadual de Campinas, Campinas, Brazil*
View Digest Text

DQ-13. **Effect of Inhomogeneous Magnetoelectric Interaction on Flat Magnetic Structures.** *E.B. Magadeev*[1] and R.M. Vakhitov[1] *1. Ufa University of Science and Technology, Ufa, Russian Federation*
View Digest Text

EXHIBIT HALL

Session DR
MULTI-FUNCTIONAL MAGNETIC MATERIALS AND APPLICATIONS I (Poster Session)

Joao Belo, Co-Chair
IFIMUP, Porto, Portugal
Lei Bi, Co-Chair
University of Electronic Science and Technology of China, Chengdu, China

DR-01. **Machine Learning-Guided Discovery of Laves Phases for Magnetocaloric Hydrogen Liquefaction.** *V.G. Lunde*[1], B.G. Eggert[1], A. Møller[1], R. Bjørk[2], J. Grivel[2], B.C. Hauback[1] and C. Frommen[1] *1. Department for Hydrogen Technology, Institute for Energy Technology, Oslo, Norway; 2. Department of Energy Conversion and Storage, Technical University of Denmark, Copenhagen, Denmark*
View Digest Text

DR-02. **Fingerprint of magneto-optical Faraday rotation in Raman spectra of MoS_2.** *M. Bacani*[1], T. Dieing[2], D. Strom[2], J. Englert[2] and P. Altmann[1] *1. Attocube Systems AG, Haar, Germany; 2. WITec GmbH, Ulm, Germany*
View Digest Text

DR-03. **Formation of ferromagnetic clusters affecting the first-order phase transition in off-stoichiometric Fe-Rh.** *A. Aubert*[1], K. Skokov[1], A. Rogalev[2], A. Chirkova[1], B. Beckmann[1], E. Dilmieva[2], F. Wilhelm[2], V. Nassif[3], L.V. Diop[4], E. Bruder[5], J. Löfstrand[6], D. Primetzhofer[6], M. Sahlberg[7], E. Adabifiroozjaei[1], L. Molina-Luna[1], G. Gomez[8], B. Eggert[8], K. Ollefs[8], H. Wende[8] and O. Gutfleisch[1] *1. Technische Universitat Darmstadt, Darmstadt, Germany; 2. ESRF, Grenoble, France; 3. University Grenoble Alpes, CNRS, Institut Néel, Grenoble, France; 4. Université de Lorraine, CNRS, IJL, Nancy, France; 5. Department of Physical Metallurgy, TU Darmstadt, Darmstadt, Germany; 6. Department of Physics and Astronomy, Uppsala University, Uppsala, Sweden; 7. Uppsala University, Uppsala, Sweden; 8. University of Duisburg-Essen, Duisburg, Germany*
View Digest Text

DR-04. **Effect of Ge Doping on the Martensitic Transformation and Magnetoelectric Behavior of $Ni_{42}Co_8Mn_{39}Sn_{11-x}Ge_x$ Melt-Spun Ribbons.** *A. Rosales-Rivera*[1], D.C. Jaimes-Gómez[1], N.A. Salazar-Henao[1], H. Gómez-Cordoba[1] and D. Salazar Jamillo[2] *1. Laboratorio de Magnetismo y Materiales Avanzados, Universidad Nacional de Colombia, Sede Manizales, Manizales, Colombia; 2. BC Materials, Basque Center for Materials, Applications, and Nanostructures, Leioa, Spain*
View Digest Text

DR-05. **Structure-property relationships in GdCuX and the corresponding hydrides (X= Si, Al).** *B.G. Eggert*[1], A.M. Döring[2], K. Skokov[2], O. Gutfleisch[2], B.C. Hauback[1] and C. Frommen[1] *1. Hydrogen Technology, Institute for Energy Technology, Kjeller, Norway; 2. Department of Materials Science, TU Darmstadt, Darmstadt, Germany*
View Digest Text

DR-06. **Stability of the Magnetocaloric Effect in Heusler Alloys in Cyclic Magnetic Fields.** *A. Gamzatov*[1] and A. Aliev[1] *1. Amirkhanov Institute of Physics DFRC of RAS, Makhachkala, Russian Federation*
View Digest Text

DR-07. **Magnetic anisotropy control through mechanical deformations: Study of magnetoelastic coupling.** D. Pérez[1], J. Espina[1], J. Fuentealba[1] and *R.M. Freire*[1] *1. Facultad de Ingeniería y Arquitectura, Universidad Central de Chile, Santiago, Chile*
View Digest Text

DR-08. **Residual Stress Monitoring in Magnetostrictive Cylinders.** E. Mangiorou[1], *T. Damatopoulou*[1], S. Angelopoulos[2], A. Ktena[2] and E.V. Hristoforou[1] *1. Laboratory of Electronic Sensors, National TU of Athens, Athens, Greece; 2. National Kapodistrian University of Athens, Athens, Greece*
View Digest Text

DR-09. **Optimizing Relative Cooling Power through Magnetic Field-Induced Magnetocaloric Effects in $La_{2-2x}Sr_{1+2x}Mn_2O_7$ (x=0.33).** A.K. Saw[1], J.P. Nunez[2], *R.L. Hadimani*[2], S. Gupta[3], V. Franco[4] and V. Dayal[1] *1. Department of Physics, Maharaja Institute of Technology Mysore (Aff: VTU, Belagavi), Mandya, India; 2. Department of Mechanical and Nuclear Engineering, Virginia Commonwealth University, Richmond, VA, United States; 3. Division of Material Science and Engineering, Ames Laboratory, US Dept. of Energy, Ames, IA, United States; 4. Departamento de Física de la Materia Condensada, Universidad de Sevilla, Sevilla, Spain*
View Digest Text

DR-10. **On the behavior of the magnetocaloric quantities ΔS_{iso} and ΔT_{ad}.** J. Caro Patiño[1] and *N.A. de Oliveira*[1] *1. Instituto de Física, Universidade do Estado do Rio de Janeiro, Rio de Janeiro, Brazil*
View Digest Text

DR-11. **New design of La(Fe, Co, Si)$_{13}$ magnetocaloric composites using Gd as a binder.** *H. Zhang*[1], Z. Wu[1], W. Pan[1], Y. Zhang[3], J. Huang[3], M. Yue[1], K. Skokov[2] and O. Gutfleisch[2]
1. Beijing University of Technology, Beijing, China; 2. Technical University of Darmstadt, Darmstadt, Germany; 3. Baotou Research Institute of Rare Earths, Baotou, China
View Digest Text

DR-12. **Magnetotransport Properties and Spin Textures in Gd_5Ge_4.** F. Mesquita[1], N. Marcano[2], L. Barquin[3], S. Magalhães[1], M. Tumelero[1], D. Möckli[1] and *P. Pureur*[1]
1. Departamento de Física, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil; 2. University of Zaragosa, Zaragosa, Spain; 3. University of Cantabria, Santander, Spain
View Digest Text

DR-13. **Temperature Anomalies of Magnetic Hyperfine Fields at ^{119}Sn and ^{111}Cd probes in Gd_5Ge_4 Studied by Mössbauer and PAC Spectroscopy.** V. Krylov[1], B.B. Santos[1], G.A. Cabrera-Pasca[2], *A.W. Carbonari*[1], R.N. Saxena[1] and O.F. Leite Neto[1] *1. CERPQ, Instituto de Pesquisas Energeticas e Nucleares, São Paulo, Brazil; 2. Faculty of Exacts Sciences and Technology, UFPA, Abaetetuba, Brazil*
View Digest Text

EXHIBIT HALL

Session DS
SENSORS AND HIGH-FREQUENCY DEVICES I (Poster Session)

Shin Yabukami, Chair
Tohoku University, Sendai, Japan

DS-01. **Study of disorientation in polycrystalline hexaferrites and application to the design of a Ka-band planar self-biased isolator.** *V. Laur*[1], A. Hoez[1], J. Mattei[1] and R. Lebourgeois[2]
1. Lab-STICC / University of Brest, Brest, France; 2. Thales Research & Technology, Palaiseau, France
View Digest Text

DS-02. **Dual Band Analysis of a Novel Rectenna for Wireless Power Transmission and Energy Harvesting Applications.** *A.M. Viana*[1], S.T. Gonçalves[1], Ú.C. Resende[1] and T.H. Mello[1]
1. Department of Electrical Engineering, Federal Center for Technological Education of Minas Gerais - CEFET-MG, Belo Horizonte, Brazil
View Digest Text

DS-05. **Enhanced Millimeter-wave Filter Design under Stochastic Uncertainties.** I. Koutzoglou[2], I. Stamatopoulos[4], D.I. Karatzidis[2], T. Ohtani[3], *Y. Kanai*[1] and N.V. Kantartzis[2]
1. Department of Enineering, Niigata Institute of Technology, Kashiwazaki, Japan; 2. School of Electrical and Computer Engineering, Aristotle University of Thessaloniki, Thessaloniki, Greece; 3. Independent Researcher, Asahikawa, Japan; 4. Directorate for Transport and Communications, Thessaloniki, Greece
View Digest Text

DS-06. **Magnetoelastic Constraint on Sensor-Intrinsic Noise.** *E. Spetzler*[1], B. Spetzler[2], J. Arbustini[3], D. Seidler[1], A. Bahr[3,4,5] and J. McCord[1,6] *1. Institute for Material Science, Kiel University, Kiel, Germany; 2. Department of Electrical Engineering and Information Technology, Technical University Ilmenau, Ilmenau, Germany; 3. Institute of Electrical Engineering and Information Technology, Kiel University, Kiel, Germany; 4. Electronics for Medical Applications, Jade University of Applied Sciences, Wilhelmshaven, Germany; 5. Institute for Integrated Circuits, Hamburg University of Technology, Hamburg, Germany; 6. Kiel Nano, Surface and Interface Science (KiNSIS), Kiel University, Kiel, Germany*
View Digest Text

DS-07. **Generation of Multiple Dark Solitons in a Magnonic Active Ring Below Self-Oscillation Threshold.** *A.B. Ustinov*[1], L.S. Vedernikov[1] and A.A. Stashkevich[2] *1. Dept. of Physical Electronics and Technology, St. Petersburg Electrotechnical University, St.Petersburg, Russian Federation; 2. LSPM (CNRS-UPR 3407), Université Paris 13, Villetaneuse, France*
View Digest Text

DS-08. **Implementing Sensors Based on Tunneling Magnetoresistance (TMR) Effect on 3D Self-Assembled Substrate.** *Z. Zhou*[1], V. Neu[2], Q. Leng[1], D. Zhu[1], W. Zhao[1], O.G. Schmidt[3] and D. Karnaushenko[3] *1. Beihang University, Beijing, China; 2. Leibniz Institute for Solid State and Materials Research (IFW) Dresden, Dresden, Germany; 3. TU Chemnitz, Chemnitz, Germany*
View Digest Text

DS-09. **Development of Co-based Heusler alloy $Co_2FeAl_xSi_{1-x}$ with small magneto-crystalline anisotropy K_1 for highly sensitive TMR sensor.** *T. Hojo*[1], H. Hamasaki[1], M. Tsunoda[3,2] and M. Oogane[1,4] *1. Department of Applied Physics, Graduate School of Engineering, Tohoku University, Sendai, Japan; 2. Research Center for Green X-Tech, Green Goals Initiative, Tohoku University, Sendai, Japan; 3. Department of Electronic Engineering, Graduate School of Engineering, Tohoku University, Sendai, Japan; 4. Center for Science and Innovation in Spintronics (Core Research Cluster) Organization for Advanced Studies, Tohoku University, Sendai, Japan*
View Digest Text

DS-10. **RTD Fluxgate Sensors based on Twisted Glass-Coated Microwires.** S. Corodeanu[1], C. Hlenschi[1], H. Chiriac[1], T.A. Ovari[1] and *N. Lupu*[1] *1. National Institute of R&D for Technical Physics, Iasi, Romania*
View Digest Text

Session EA
ORBITRONICS: FROM THEORY TO EXPERIMENTS

Antonio Azevedo, Chair
Universidade Federal de Pernambuco (Physics), Recife, Brazil

2:00

EA-01. **Electron Orbital Dynamics in Solids.** ***(Invited)*** S. Han[1], H. Ko[2], J. Oh[2], K. Lee[2], K. Kim[3] and *H. Lee*[1] *1. Department of Physics, Pohang University of Science and Technology, Pohang, The Republic of Korea; 2. Department of Physics, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, The Republic of Korea; 3. Center for Spintronics, Korea Institute of Science and Technology, Seoul, The Republic of Korea*
View Digest Text

2:30

EA-02. **Orbital Hall effect, orbital-to-spin conversion and magnetoresistance in metallic heterostructures.** ***(Invited)*** *P. Gambardella*[1] *1. ETH Zurich, Zurich, Switzerland*
View Digest Text

3:00

EA-03. **Optical detection of orbital Hall effect in Ti, Mn, and Cu.** ***(Invited)*** Y. Choi[1], D. Jo[2], K. Ko[1], H. Lee[2] and *G. Choi*[1] *1. Sungkyunkwan University, Suwon, The Republic of Korea; 2. POSTECH, Pohang, The Republic of Korea*
View Digest Text

3:30

EA-04. **Orbital currents and orbital torques in metallic systems.** ***(Invited)*** *K. Ando*[1] *1. Keio University, Yokohama, Japan*
View Digest Text

4:00

EA-05. **From Discovery to Application: Orbital Hall Materials for Cutting-Edge SOT-MRAM Devices.** ***(Invited)*** *R. Gupta*[1], C. Bouard[2], D. Go[1,3], A. Bose[1], F. Kammerbauer[1], O. Ledesma[1], S. Martin[2], G. Jakob[1], Y. Mokrousov[1,3], M. Drouard[2] and M. Kläui[1,4] *1. Johannes Gutenberg University, Mainz, Germany; 2. ANTAIOS, Meylan, France; 3. Peter Grünberg Institut and Institute for Advanced Simulation, Jülich, Germany; 4. Department of Physics, Center for Quantum Spintronic, Trondheim, Norway*
View Digest Text

4:30

EA-06. **Orbitronics in Two-dimensional Materials.** ***(Invited)***
T.G. Rappoport[1,2] 1. Department of Physics, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil; 2. Physics, Minho University, Braga, Portugal
View Digest Text

OCEANIA VI & VII

Session EB
MAGNETIC FIELD SENSORS

Paul Stevenson, Chair
Northeastern University, Boston, MA, United States

2:00

EB-01. **Acoustically Driven Ferromagnetic Resonance for Miniaturized High-Performance Magnetometry.** ***(Invited)***
D. Labanowski[1], A. Hsin[1], J. Blodgett[1], V. Guzman[1], K. Srinivasan[1], K. Gotlieb[1], J. Katz[1], J. Hubert[1], J. Laprade[1], V. Brajuskovic[1], G. Jaramillo[1], S. Karki[1], T. Fawal[1], H. Wahhab[1] and N. Deka[1] *1. Sonera, Berkeley, CA, United States*
View Digest Text

2:30

EB-02. **Skyrmionic device for three dimensional magnetic field sensing enabled by spin-orbit torques.** S. Koraltan[1], R. Gupta[2], R. Peremadathil Pradeep[4], F. Kammerbauer[2], K. Prügl[5], M. Kirsch[5], B. Aichner[1], K. Davidkova[1], F. Bruckner[1], S. Zeilinger[1], S. Helbig[1], C. Abert[1], A. Mandru[4], A. Satz[3], G. Jakob[2], H.J. Hug[4], M. Kläui[2] and *D. Suess*[1]
1. Faculty of Physics, University Vienna, Vienna, Austria; 2. Faculty of Physics, University Mainz, Mainz, Germany; 3. Infineon Technologies, Villach, Austria; 4. EMPA, Zürich, Switzerland; 5. Infineon Technologies, Regensburg, Germany
View Digest Text

2:45

EB-03. **Sensitivity and Linearity of Domain Wall Displacement Modulation GMR Sensors with Closed-loop Current-field Feedback.** *K. Komuro*[1], D. Oshima[1] and T. Kato[2]
1. Department of Electronics, Nagoya University, Nagoya, Japan; 2. Institute of Materials and Systems for Sustainability, Nagoya University, Nagoya, Japan
View Digest Text

3:00

EB-04. **An ultrathin, rapidly fabricated, flexible giant magnetoresistive electronic skin.** J. Zhang[1,2], *Z. Jin*[1,2], G. Chen[1] and J. Chen[1,3,2] *1. Chinese Academy of Sciences, State Key Laboratory of Transducer Technology, Aerospace Information Research Institute, Beijing, China; 2. School of Electronic, Electrical and Communication Engineering, University of Chinese Academy of Sciences, Beijing, China; 3. College of Materials Sciences and Opto-Electronic Technology, University of Chinese Academy of Sciences, Beijing, China*
View Digest Text

3:15

EB-05. **Development of Open-structure Rotary Magnetic Encoder for Underwater Applications.** H. Lin[1], K. Peng[1] and *J. Chang*[1,2] *1. Power Mechanical Engineering, National Tsing Hua University, Hsinchu, Taiwan; 2. National Formosa University, Huwei Township, Taiwan*
View Digest Text

3:30

EB-06. **Remote sensing of nanoscale displacements through detection of magnetic field gradients with magnetic tunnel junction sensors.** *A. Talantsev*[1], T. Böhnert[1], A. Araújo[1], E. Paz[1], L. Benetti[1] and R. Ferreira[1] *1. Spintronics, International Iberian Nanotechnology Laboratory, Braga, Portugal*
View Digest Text

3:45

EB-07. **Recent Advances in Modeling ΔE-Effect Magnetic Field Sensors.** ***(Invited)*** F. Ilgaz[2], E. Spetzler[2], P. Wiegand[3], F. Faupel[2], R. Rieger[3], J. McCord[2,4] and *B. Spetzler*[1] *1. Department of Electrical Engineering and Information Technology, Ilmenau, Germany; 2. Department of Materials Science, Kiel, Germany; 3. Institute of Electrical Engineering and Information Technology, Kiel, Germany; 4. Kiel Nano, Surface and Interface Science (KiNSIS), Kiel, Germany*
View Digest Text

4:15

EB-08. **Numerical Modeling of the Magnetoimpedance effect from Micromagnetism.** *G. Gestoso*[1], D. de Cos Elices[2], E. Fernandez[3] and A. García-Arribas[1,3] *1. Departamento de Electricidad y Electrónica, Universidad del País Vasco UPV/EHU, Leioa, Spain; 2. Departamento de Física, Universidad del País Vasco UPV/EHU, Vitoria, Spain; 3. BC Materials, Leioa, Spain*
View Digest Text

4:30

EB-09. **Multifunctional MgO-Based Magnetic Tunnel Junctions with Coexisting Magnetoresistance and Memristive Properties.** A. Schulman[1,2], E. Paz[1], *T. Boehnert*[1], A. Jenkins[1] and R. Ferreira[1] *1. Spintronics, International Iberian Nanotechnology Laboratory (INL), Braga, Portugal; 2. University of Salamanca, Salamanca, Spain*
View Digest Text

4:45

EB-10. **2-Axis planar Hall magnetic field sensors with sub nanoTesla resolution.** *P.T. Das*[1,2], H. Nhalil[2], V. Mor[2], M. Schultz[2], N. Hasidim[3], A. Grosz[3] and L. Klein[2] *1. Intelligent Materials and Systems (FWID), Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany; 2. Department of Physics, Bar-Ilan University, Ramat Gan, Israel; 3. Department of Electrical and Computer Engineering, Ben-Gurion University of the Negev, Beer-Sheva, Israel*
View Digest Text

OCEANIA IX & X

Session EC
INTERDISCIPLINARY TOPICS: SENSORS, ANTENNAS, AND NANOFABRICATION

Luiz Sampaio, Chair
Brazilian Center for Research in Physics, Rio de Janeiro, Brazil

2:00

EC-01. **Nanoscale Magnetic Field Quantification of Skyrmion Spin Textures using in-vacuum Magnetic Force Microscopy.** ***(Invited)*** *H.J. Hug*[1,2], R. Peremadathil-Pradeep[1,2], L. Jamilpanah[1], E. Darwin[1] and A. Mandru[1] *1. Magnetic and Functional Thin Films, Empa, Duebendorf, Switzerland; 2. Department of Physics, University of Basel, Basel, Switzerland*
View Digest Text

2:30

EC-02. **Frequency-Domain Propagation in Multiconductor Submarine Power Cables.** *R.A. Coelho*[1], G.C. Biage[1], M.L. P. Filho[2] and J.R. Cardoso[1] *1. InnovaPower - RCGI, Universidade de São Paulo, São Paulo, Brazil; 2. Institute for Technological Research, São Paulo, Brazil*
View Digest Text

2:45

Now VP13-14

EC-03. **Research on High Performance TMR-Superconducting Composite Magnetic Sensor and Performance Optimization.** *S. Han*[1,2], Y. Wu[3], Z. Jin[1] and J. Chen[1,2,4] *1. State Key Laboratory of Transducer Technology, Aerospace Information Research Institute, Beijing, China; 2. School of Electronic, Electrical and Communication Engineering, University of Chinese Academy of Sciences, Beijing, China; 3. Institute of Electrical Engineering, Chinese Academy of Sciences, Beijing, China; 4. College of Materials Sciences and Opto-Electronic Technology, University of Chinese Academy of Sciences, Beijing, China*
View Digest Text

3:00

EC-04. **Analytical Calculation of Series Impedance for Deeply Buried Coaxial Cables.** *G.C. Biage*[1], R.A. Coelho[1] and J.R. Cardoso[1] *1. RCGI, Universidade de São Paulo, São Paulo, Brazil*
View Digest Text

3:15

EC-05. **Progress in nanofabrication of superconducting devices and diverse applications.** *A.C. Rebello*[1], N.Y. Klein[1], L.M. Ruela[2], E. Martins[3], I.S. Oliveira[1], J.P. Sinnecker[1] and F. Rouxinol[2] *1. Department of Condensed Matter, Centro Brasileiro de Pesquisas Fisicas, Niteroi, Brazil; 2. University of Campinas, Campinas, Brazil; 3. Centro de Pesquisas, Desenvolvimento e Inovação Leopoldo Américo Miguez de Mello, Rio de Janeiro, Brazil*
View Digest Text

3:30

EC-06. **Magnetoelectric Materials and Ultra-compact Mechanical Antennas.** ***(Invited)*** B. Luo[1], Y. Liu[1], R. Huang[1] and *N.X. Sun*[1] *1. Northeastern University, Boston, MA, United States*
View Digest Text

4:00

EC-07. **Withdrawn**

4:15

EC-08. **In Plane Single Domain 3D SOT Sensor with Active Offset Compensation.** *S. Zeilinger*[1], A. Satz[2], J. Guettinger[2], J.M. Salazar[1] and D. Suess[1] *1. University of Vienna, Vienna, Austria; 2. Infineon Austria, Villach, Austria*
View Digest Text

4:30

EC-09. **Skyrmion-based rotation counter-sensor device.** *K. Leutner*[1], R. Frömter[1], T. Winkler[1], R. Gruber[1], J. Guettinger[2], H. Fangohr[3,4] and M. Kläui[1] *1. Institute of Physics, Johannes Gutenberg University Mainz, Mainz, Germany; 2. Infineon Technologies Austria AG, Villach, Austria; 3. Max-Planck Institute for the Structure and Dynamics of Matter, Hamburg, Germany; 4. Faculty of Engineering and Physical Sciences, University of Southampton, Southampton, United Kingdom*
View Digest Text

4:45

EC-10. **A carborane-based Gd metal-organic framework towards scalable Quantum Computing.** *E. Bartolomé*[1], A. Arauzo[2], I. García-Rubio[2], J. Luzón[3], X. Li[1] and J. Giner-Planas[1] *1. Instituto de Ciencia de Materiales de Barcelona (ICMAB), Barcelona, Spain; 2. Department of Condensed Matter Physics, Instituto de Nanociencia y Materiales de Aragón (INMA), CSIC-Universidad de Zaragoza, Zaragoza, Spain; 3. Centro Universitario de Defensa (CUD), Zaragoza, Spain*
View Digest Text

OCEANIA I & II

Session ED
BIOMAGNETICS II

Andris Bakuzis, Co-Chair
Federal University of Goiás, Goiânia, Brazil
Kai Wu, Co-Chair
Texas Tech University, Lubbock, TX, United States

2:00

ED-01. **Magnetism for mechanobiology and related biomedical applications.** ***(Invited)*** *B. Dieny*[1], A. Visonà[1,2], R. Morel[1], H. Joisten[1], P. Obeid[5], A. Nicolas[2], S. Belin[3] and F. Berger[4] *1. SPINTEC, Univ.Grenoble Alpes, CEA, CNRS, Grenoble, France; 2. LTM, Univ.Grenoble Alpes, CEA, CNRS, Grenoble, France; 3. Grenoble Institut Neurosciences, Univ. Grenoble Alpes, U1216, Grenoble, France; 4. Brain Tech Lab, Univ. Grenoble Alpes, INSERM, Grenoble, France; 5. Biomics, Univ.Grenoble Alpes, CEA, INSERM, Grenoble, France*
View Digest Text

2:30

ED-02. **Melanoma Cell Internalization of Spin-Vortex Nanodisks for Cancer Treatment.** *R. Zurbano*[1], C. Redondo[1], I. Solozabal Azcarate[1], M. Boyano[2,3] and R. Morales[4,5] *1. Department of Physical Chemistry, University of the Basque Country, Leioa, Spain; 2. Department of Cell Biology and Histology, University of the Basque Country, Leioa, Spain; 3. Biocruces Health Research Institute, Bilbao, Spain; 4. University of the Basque Country UPV/EHU & BC Materials, Leioa, Spain; 5. IKERBASQUE, Bilbao, Spain*
View Digest Text

2:45

ED-03. **Level Change of Biochemical Markers in Serum after Acute Administration of Magnetite (Fe_3O_4) Nanoparticles.** *S. Lee*[1], J. Choi[1], Y. Hong[3] and M. Hasan[2] *1. Department of Digital Healthcare Engineering, Sangji University, Wonju, The Republic of Korea; 2. Department of Biochemistry and Molecular Biology, Bangabandhu Sheikh Mujibur Rahman Science and Tech. University, Gopalganj, Bangladesh; 3. Department of Information and Communication Software Engineering, Sangji University, Wonju, The Republic of Korea*
View Digest Text

3:00

ED-04. **Effects, Mechanisms, and Potential Biomedical Applications of Static Magnetic Fields.** ***(Invited)*** *X. Zhang*[1] *1. High Magnetic Field Laboratory, Hefei Institutes of Physical Science, Hefei, China*
View Digest Text

3:30

ED-05. **Fe_3N nanoparticles: properties, stability and applications.** Y. Ablets[1], L. Kubíčková[2], A. Chanda[3], I. Orue[4], D. Koch[1], S. Najma[1], S. Forg[5], E. Adabifiroozjaei[1], L. Molina-Luna[1], T. Kmječ[6], J. Ángel García[7], F. Plazaola[8], R. von Klitzing[5], W. Donner[1], H. Srikanth[3], O. Gutfleisch[1] and *I. Dirba*[1] *1. Institute of Materials Science, TU Darmstadt, Darmstadt, Germany; 2. FZU - Institute of Physics of the Czech Academy of Sciences, Praha, Czechia; 3. Department of Physics, University of South Florida, Tampa, FL, United States; 4. SGIker Medidas Magnética, Universidad del País Vasco (UPV/EHU), Leioa, Spain; 5. Institute for Condensed Matter Physics, TU Darmstadt, Darmstadt, Germany; 6. Faculty of Mathematics and Physics, Charles University in Prague, Prag, Czechia; 7. Departamento de Física, Universidad del País Vasco (UPV/EHU), Leioa, Spain; 8. Elektrizitatea eta Elektronika Saila, Facultad de Ciencia y Tecnologia, (UPV/EHU), Leioa, Spain*
View Digest Text

3:45

ED-06. **Measurement of Transcranial Magnetic Stimulation-Induced Electric Fields in conductively accurate Rat Head Phantoms.** *W. Lohr*[1], R.L. Hadimani[1,2], P. Sundaram[3] and M. Tashli[2] *1. Department of Biomedical Engineering, Virginia Commonwealth University, Richmond, VA, United States; 2. Department of Mechanical and Nuclear, Virginia Commonwealth University, Richmond, VA, United States; 3. Martino's Center, Harvard Medical School, Boston, MA, United States*
View Digest Text

4:00

ED-07. **Magnetic Nanoparticle-Based Detection of Genetic Biomarkers Using Surface-Localized Nucleic Acid Amplification for Ultrasensitive and Rapid Diagnosis.** ***(Invited)*** *J. Lee*[1] *1. Hanyang University, Ansan, The Republic of Korea*
View Digest Text

4:30

ED-08. **Giant Magnetoresistive Biosensors for Measuring Enzyme Kinetics.** J. Im[1], S. Kim[1], S. Park[1], S.X. Wang[2] and *J. Lee*[1] *1. Ewha Womans University, Seoul, The Republic of Korea; 2. Stanford University, Stanford, CA, United States*
View Digest Text

4:45

ED-09. **Magnetically-Enabled Detection of Circulating Tumor DNA in Non-Small Cell Lung Cancer Patients for Therapy Selection Purposes.** K. Antilla[1], *C. Choi*[2] and S.X. Wang[2,3] *1. Department of Chemical Engineering, Stanford University, Stanford, CA, United States; 2. Department of Materials Science and Engineering, Stanford University, Stanford, CA, United States; 3. Department of Electrical Engineering, Stanford University, Stanford, CA, United States*
View Digest Text

Session EE
HARD MAGNETIC MATERIALS II

Paulo Wendhausen, Co-Chair
Universidade Federal de Santa Catarina, Florianópolis, Brazil
Ping Liu, Co-Chair
University of Texas at Arlington, Colleyville, TX, United States

2:00

EE-01. **Development of Permanent Magnets – A Critical Materials Consideration.** ***(Invited)*** *M.J. Kramer*[1,2], A. Palasyuk[1], I.Z. Hlova[1], J. Cui[1,2] and D. Parker[3] *1. Ames National Laboratory, Ames, IA, United States; 2. Department Materials Science and Engineering, Iowa State University, Ames, IA, United States; 3. Materials Science and Technology Division, ORNL, Oak Ridge, TN, United States*
View Digest Text

2:30

EE-02. **Smart Predictions: Machine Learning in Constructing Sm-Fe-V Phase Diagram.** *P. Tozman*[1], A.D. Zamalloa[1], A. Aubert[1], K. Skokov[1] and O. Gutfleisch[1] *1. Functional Materials, Technical University of Darmstadt, Darmstadt, Germany*
View Digest Text

2:45

EE-04. **Novel hardening mechanism and element specific magnetic anisotropy in SmCoCu thin films.** G. Gkouzia[1], D. Günzing[2,4], R. Xie[1], T. Weßels[2,3], A. Kovács[3], A.T. N'Diaye[4], M. Major[1], J. Palakkal[5,1], R.E. Dunin-Borkowski[3], H. Wende[2], H. Zhang[1], K. Ollefs[2] and *L. Alff*[1] *1. Department of Materials Science, TU Darmstadt, Darmstadt, Germany; 2. Department of Physics, University Duisburg-Essen, 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; 5. Department of Physics, Georg August University of Göttingen, Göttingen, Germany*
View Digest Text

3:00

EE-05. **Exploring the Formation of Ordered Tetrataenite Phase in Cryomilled FeNi Alloys with Small Carbon Additions.** V.R. da Silva[1], B.C. Hauback[1] and *S. Deledda*[1] *1. Institute for Energy Technology, Kjeller, Norway*
View Digest Text

3:15

EE-06. **Effect of different grain boundary diffusion alloys on magnetic properties of Dy-free sintered NdFeB magnet.** W. Tang[1], J. Wang[1], C. Pan[1], M. Kang[1], L. Zhou[1,2], *M.J. Kramer*[1], J. Cui[1,2] and I.E. Anderson[1,2] *1. Ames National Laboratory of USDOE, Ames, IA, United States; 2. Department of Materials Science & Engineering, Iowa State University, Ames, IA, United States*
View Digest Text

3:30

EE-08. **Disproportionation and recombination reactions - a promising technique of producing sintered nanostructured anisotropic SmCo5 magnets.** *I. Bulyk*[1,2,3], B. Yang[1,2], M. Yang[1,2] and I. Boruch[3] *1. Institute of Rare Earth Magnetic Materials and Devices, Jiangxi University of Science and Technology, Ganzhou, China; 2. National Rare Earth Functional Materials Innovation Center, Ganzhou, China; 3. Karpenko Physico-Mechanical Institute of National Academy of Sciences of Ukraine, Lviv, Ukraine*
View Digest Text

3:45

EE-09. **Magnetic hardness of Fe_3C-based alloys: A first-principles study.** *J. Snarski-Adamski*[1], J.N. Rychly-Gruszecka[1] and M. Werwinski[1] *1. Institute of Molecular Physics Polish Academy of Sciences, Poznan, Poland*
View Digest Text

4:00

EE-10. **Fe_2MnSn Heusler alloy based rare-earth-free permanent magnets.** *M.A. Jami*[1], R. Pathak[2] and A. Bhattacharya[1] *1. Department of Metallurgical Engineering and Materials Science, IIT Bombay, Mumbai, India; 2. Uppsala University, Uppsala, Sweden*
View Digest Text

4:15

EE-11. **Deflection patterns on strontium ferrite/iron oxide/Ecoflex 00-30 flexible composites.** V.V. Xavier[1], M. Elabbasi[2], A. El-Gendy[2] and *A. de Oliveira Barros*[3] *1. Department of Mechanical Engineering, Federal Institute of Pernambuco, Caruaru, Brazil; 2. Department of Physics, University of Texas at El Paso, El Paso, TX, United States; 3. Department of Industrial, Manufacturing and Systems Engineering, University of Texas at El Paso, El Paso, TX, United States*
View Digest Text

Session EF
SOFT MAGNETIC ALLOYS: SYNTHESIS, CHARACTERISATION AND MODELING

Ivan Skorvanek, Chair
Institute of Experimental Physics, Slovak Academy of Sciences, Kosice, Slovakia

2:00

EF-01. **The Influence of SiO_2 Layer on the Temperature Stability of SMC Based on Iron and Mn-Zn Ferrite.** *J. Fuzer*[1], S. Vovk[1], S. Dobák[1], P. Kollár[1], R. Bureš[2], M. Fáberová[2], V. Tsakaloudi[3] and V. Zaspalis[3,4] *1. Institute of Physics, P.J. Safarik University, Kosice, Slovakia; 2. Insitute of Materials Research, Slovak Academy of Sciences, Košice, Slovakia; 3. CERTH, Thessaloniki, Greece; 4. Department of Chemical Engineering, Aristotle University of Thessaloniki, Thessaloniki, Greece*
View Digest Text

2:15

EF-02. **Effects of warm-rolling condition on microstructure, texture and magnetic properties of Fe-18Co-xSi-0.5Al mass% alloys.** *T. Sato*[1] *1. Corporate Research & Development Center, Daido Steel Co., Ltd., Nagoya, Japan*
View Digest Text

2:30

EF-03. **Excess loss modeling in ferromagnetic materials, including thermal effects.** *S. Jacobs*[1] and J. Rens[2] *1. ArcelorMittal Global R&D, Zwijnaarde, Belgium; 2. ArcelorMittal Global R&D Gent, Zwijnaarde, Belgium*
View Digest Text

2:45

EF-04. **Predicting Magnetic Losses in HGO Steel Sheets under Distorted Induction waveform.** N. Banu[1], *M. Pasquale*[1] and F. Fiorillo[1] *1. INRIM, Torino, Italy*
View Digest Text

3:00

EF-05. **Tensile stress effect on magnetic Barkhausen noise of silicon steel single crystal (measurements and simulations).** *B. Ducharne*[1,2,3], E. Wasniewski[4], L. Daniel[5], M. Domenjoud[5] and P. Fagan[5] *1. Institut National des Sciences Appliquees de Lyon, Villeurbanne, France; 2. Tohoku University, Sendai, Japan; 3. ELyTMaX, CNRS, Sendai, Japan; 4. CETIM, Senlis, France; 5. Université Paris-Saclay, CentraleSupélec, Gif-sur-yvette, France*
View Digest Text

3:15

EF-06. **Stress-Induced Magnetization Process in Shifted Grain-Oriented Steel Ring Cores.** *S. Dobák*[1], J. Fuzer[1], I. Petryshynets[2], F. Onderko[1], P. Kollár[1] and F. Kováč[2] *1. Institute of Physics, Faculty of Science, P. J. Šafárik University, Košice, Slovakia; 2. Institute of Materials Research, Slovak Academy of Sciences, Košice, Slovakia*
View Digest Text

3:30

EF-08. **Effect of tension and compression stress on the magnetic losses in a low-Carbon steel.** *A. Ouazib*[1,2], M. Domenjoud[1,2] and L. Daniel[1,2] *1. Université Paris-Saclay, CentraleSupélec, CNRS, Laboratoire de Genie Electrique et Electronique de Paris, Gif sur Yvette, France; 2. Sorbonne Université, Paris, France*
View Digest Text

3:45

EF-09. **Process Development for Synthesizing FeCoN-based Magnetic Materials.** *T. Tabata*[1], Y. Asari[1], M. Noujima[1] and S. Terada[1] *1. Research & Development Group, Hitachi, Ltd., Hitachi, Japan*
View Digest Text

4:00

EF-10. **First-Principles Study of Saturation Magnetization Flux Density in Nitrogen Defective α′-Fe8Nx.** *Y. Asari*[1], T. Tabata[1], M. Noujima[1] and S. Terada[1] *1. Hitachi, Ltd., Hitachi, Japan*
View Digest Text

4:15

EF-11. **Enhancing Magnetic Properties of Fe-Ni Soft Magnetic Composites via Dry-coated MgO Insulation.** *H. Kim*[1,2], K. Kim[1], S. Yang[1], Y. Kim[2] and J. Jeong[1] *1. Korea Institute of Materials Science (KIMS), Changwon, The Republic of Korea; 2. Sungkyunkwan University, Suwon, The Republic of Korea*
View Digest Text

4:30

EF-12. **High-Rate Deposition and Characterization Study of CoZrO Films for On-Chip Power Applications.** *E. Ng*[1], J. Lin[2], E. Young-Dohe[3], C. Sullivan[4], A. Hanson[1] and J. Incorvia[1] *1. Chandra Family Department of Electrical and Computer Engineering, University of Texas at Austin, Austin, TX, United States; 2. Materials Engineering Department, Southwest Research Institute, San Antonio, TX, United States; 3. NASA Glenn Research Center, Cleveland, OH, United States; 4. Dartmouth College, Hanover, NH, United States*
View Digest Text

4:45

EF-07. **Boron added Fe-6.5%Si melt spun ribbon with improved processability and magnetic properties.** G. Ouyang[1], B. Hillard[1], *M.J. Kramer*[1,2], I.E. Anderson[1,2] and J. Cui[1,2] *1. Department of Material Science and Engineering, Ames Laboratory, Ames, IA, United States; 2. Iowa State University, Ames, IA, United States*
View Digest Text

EUROPA IV

Session EG
MAGNETIZATION DYNAMICS, DAMPING, AND MICROMAGNETIC MODELING

Jose Angel Fernandez-Roldan, Co-Chair
HZDR, Oviedo, Spain
Vito Puliafito, Co-Chair
Politecnico di Bari, Bari, Italy

2:00

EG-01. **Optical control of antiferromagnetism.** ***(Invited)***
C. Tzschaschel[1] *1. Max Born Institute, Berlin, Germany*
View Digest Text

2:30

EG-02. **Complex Dynamics In Mutually Coupled Spin Torque Vortex Oscillators.** *K. Ho*[1,2,3], S. Wittrock[4], S. Perna[5], R. Dutra[6], R. Ferreira[7], C. Serpico[5], P. Bortolotti[1,2,3], R. Lebrun[1,2,3] and V. Cros[1,2,3] *1. Laboratoire Albert Fert, Palaiseau, France; 2. CNRS, University of Paris-Sud, Palaiseau, France; 3. Thales Communications & Security, Palaiseau, France; 4. Helmholtz-Zentrum Berlin fur Materialien und Energie GmbH, Berlin, Germany; 5. University of Naples, Naples, Italy; 6. Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, Brazil; 7. International Iberian Nanotechnology Laboratory, Braga, Portugal*
View Digest Text

2:45

EG-04. **Microcoils for magnetisation reset in stroboscopic optical pump-probe experiments.** *C.R. Sait*[1], T.H. Loughran[1], M. Dabrowski[1], P.S. Keatley[1] and R. Hicken[1] *1. Department of Physics, University of Exeter, Exeter, United Kingdom*
View Digest Text

3:00

EG-05. **Dramatic Enhancement of Magnetic Domain Wall Velocity beyond Walker breakdown via the Resonant Dissipation.** *G. Kim*[1], D. Jung[1], H. Han[2], S. Jeong[1], M. Im[3] and K. Lee[1,4] *1. School of Materials Science and Engineering, Ulsan National Institute of Science Technology, Ulsan, The Republic of Korea; 2. Department of Materials Science and Engineering, Korea National University of Transportation, Chungju, The Republic of Korea; 3. Center for X-ray Optics, Lawrence Berkeley National Laboratory, Berkeley, CA, United States; 4. Graduate School of Semiconductor Materials and Devices Engineering, Ulsan National Institute of Science Technology, Ulsan, The Republic of Korea*
View Digest Text

3:15

EG-06. **Scaling exponents for Barkhausen avalanches in magnetic multilayers.** *F. Bohn*[1], N.R. Machado[1], E.F. da Silva[1], M. Gamino[1], M.A. Correa[1] and R.L. Sommer[2] *1. Department of Physics, Universidade Federal do Rio Grande do Norte, Natal, Brazil; 2. Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, Brazil*
View Digest Text

3:30

EG-07. **Tunable 2-D Magnonic Crystals: Effect of Packing Density.** C. Tian[2] and *A.O. Adeyeye*[1,2] *1. Department of Physics, Durham University, Durham, United Kingdom; 2. Department of Electrical & Computer Engineering, National University of Singapore, Singapore*
View Digest Text

3:45

EG-08. **Evolution of the magnetic switching processes from in-plane to out-of-plane in $Ni_{90}Fe_{10}/Fe_{70}Ga_{30}$ magnetostrictive bilayers.** A. Begué[1], N. Cotón[1], C. Martín-Rubio[2], M. Jaafar[3], *R. Sanz González*[2] and R. Ranchal[1] *1. Department of Material Physics, Complutense University, Madrid, Spain; 2. Payloads and Space Sciences Department, Instituto Nacional de Técnica Aeroespacial, Torrejón de Ardoz, Spain; 3. Material Science Institute of Madrid, Madrid, Spain*
View Digest Text

4:00

EG-09. **Enhancement of damping in YIG films at millikelvin temperatures due to GGG substrate.** *R. Serha*[1], A. Voronov[1], D. Schmoll[1], R.V. Verba[2], S. Koraltan[1], M. Urbánek[3], M. Lindner[4], T. Reimann[4], C. Dubs[4], C. Abert[1], D. Suess[1], S. Knauer[1] and A. Chumak[1] *1. Department 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

4:15

EG-10. **Magnetization reversal and direct observation of magnetic domains on FePt thin films.** *A. Román*[1,2], J. Gomez[3,4,5], A. Butera[3,4,5], P. Vavassori[6,7] and L. Steren[1,3] *1. Instituto de Nanociencia y Nanotecnología, CNEA/CONICET, Nodo Constituyentes, San Martín, Argentina; 2. Instituto de Nanociencia y Nanotecnología, CNEA/CONICET, Buenos Aires, Argentina; 3. Consejo Nacional de Investigaciones Científicas y Técnicas, Argentina, Argentina; 4. Instituto de Nanociencia y Nanotecnología, CNEA/CONICET, Nodo Bariloche, San Carlos de Bariloche, Argentina; 5. Laboratorio de Resonancias Magnéticas, Centro Atómico Bariloche, San Carlos de Bariloche, Argentina; 6. Nanomagnetism, CIC nanoGUNE, Donostia-San Sebastián, Spain; 7. IKERBASQUE, Basque Foundation for Science, Bilbao, Spain*
View Digest Text

4:30

EG-11. **Theoretical analysis of the spin-torque diode effect driven by magnetization phase-transitions.** M. Lianeris[1], A. Meo[1], M. Carpentieri[1], *R. Tomasello*[1] and G. Finocchio[2]
1. Department of Electrical and Information Engineering, Politecnico di Bari, Bari, Italy; 2. University of Messina, Messina, Italy
View Digest Text

EXHIBIT HALL

Session EP
BIOMAGNETICS III
(Poster Session)

Javier Alonso, Co-Chair
University of Cantabria, Santander, Spain
Ravi Hadimani, Co-Chair
Virginia Commonwealth University, Richmond, VA, United States
Ana García-Prieto, Co-Chair
University of the Basque Country UPV/EHU, Bilbao, Spain

EP-01. **Novel polymer memristor as an integrate and fire synaptic device.** *W. Lohr*[1], R.L. Hadimani[2], S. Khannah[3], S. Bothra[1], N. Kumar[4] and S. Singh[3] *1. Department of Biomedical Engineering, Virginia Commonwealth University, Richmond, VA, United States; 2. Department of Mechanical and Nuclear Engineering, Virginia Commonwealth University, Richmond, VA, United States; 3. Academy of Scientific and Innovative Research, Ghaziabad, India; 4. CSIR-National Physical Laboratory, New Delhi, India*
View Digest Text

EP-02. **An Output-Fusion Fuzzy Logic Controller for Tumor Thermal Ablation Therapy System with Wireless Power Transfer.** Y. Huang[1], C. Hung[1] and *C. Tai*[1] *1. Department of Electrical Engineering, National Cheng Kung University, Tainan, Taiwan*
View Digest Text

EP-04. **Evaluating Magnetic Nanoparticles for Efficient Magnetic Kidney Stone Extraction.** *J. Bryan*[1], D. Massana Roquero[2], J.C. Liao[2] and S.X. Wang[1,3] *1. Department of Materials Science and Engineering, Stanford University, Stanford, CA, United States; 2. Department of Urology, Stanford University, Stanford, CA, United States; 3. Electrical Engineering, Stanford University, Stanford, CA, United States*
View Digest Text

EP-05. **An Ultra-Broadband Magnetic Susceptivity Evaluation of Magnetic Nanoparticle and Protein.** *S. Yabukami*[1,2], J. Honda[1], T. Murayama[1], L. Tonthat[1] and K. Okita[2] *1. Tohoku University, Sendai, Japan; 2. Tohoku-TMIT, Sendai, Japan*
View Digest Text

EP-06. **Development of Siloxane-Polyether Hybrid Materials Containing Superparamagnetic Nanoparticles for Future Drug Delivery Applications.** *A.C. Teixeira*[1], N.M. Suguihiro[1], B.R. Salles[2], V. de Oliveira Freitas Lione[3] and K. Dahmouche[1] *1. Campus Duque de Caxias, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil; 2. Instituto de Física, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil; 3. Faculdade de Farmácia, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil*
View Digest Text

EP-07. **Fe-Cr-Nb-B Magnetic Particles for Cancer Cell Destruction.** H. Chiriac[1], A. Minuti[1], C. Stavila[1,2] and *N. Lupu*[1] *1. National Institute of Research and Development for Technical Physics, Iasi, Romania; 2. "Alexandru Ioan Cuza" University of Iasi, Iasi, Romania*
View Digest Text

EP-08. **Intermittent F-actin Perturbations by Magnetic Fields Inhibit Breast Cancer Metastasis.** *X. Ji*[1] and X. Zhang[1] *1. High Magnetic Field Laboratory of CAS (CHMFL), Hefei, Anhui, China*
View Digest Text

EXHIBIT HALL

Session EQ
NUMERICAL, SEMI-ANALYTICAL AND ANALYTICAL ANALYSIS METHODS II (Poster Session)

Johannes Paulides, Chair
Advanced Electromagnetics Group, Waalwijk, Netherlands

EQ-02. **Anisotropic Models of Nonlinear Magnetic Behavior Laws for Finite Element Modeling of Iron Losses in a Toroidal Core.** *J. Drappier*[1], F. Guyomarch[1], R. Cherif[2], Y. Le Menach[1], O. Messal[1], L. Chevallier[1] and A. Benabou[1] *1. L2EP, University of Lille, Lille, France; 2. ESME, Lille, France*
View Digest Text

EQ-03. **Skewing Effect on the Performance Characteristics of Synchronous Reluctance Machine with 3D Printed Axially Laminated Anisotropic Rotor.** *M. Sitnikov*[1], F. Martin[1] and A. Belahcen[1] *1. Department of Electrical Engineering and Automation, Aalto University, Espoo, Finland*
View Digest Text

EQ-04. **Highly Efficient Experimental System for Thermomagnetic Coefficient Calculations.** *C.M. Valença*[1], J.M. de Oliveira[1], A. de Morais[1], A. Ferreira[2], F. Vaz[2], F. Bohn[1] and M.A. Correa[1] *1. Physics Department, Universidade Federal do Rio Grande do Norte, Natal, Brazil; 2. Physics Department, University of Minho, Braga, Portugal*
View Digest Text

EQ-05. **Implementation of an Edge-Based h-Formulation in the Nonlinear Magnetostatic Case.** *L.D. Domenig*[1], K. Roppert[1] and M. Kaltenbacher[1] *1. Institute of Fundamentals and Theory in Electrical Engineering, Graz University of Technology, Graz, Austria*
View Digest Text

EQ-06. **Development of a Combined Maxwell's Equations and Magnetic Equivalent Circuit Solution for Induction Machines in Electric Vehicle Applications.** O. Taqavi[1], *P. Song*[1], Z. Li[1] and N. Kar[1] *1. Department of Electrical and Computer Engineering, University of Windsor, Windsor, ON, Canada*
View Digest Text

EQ-07. **Shape Optimization of Electric Motors Using 2.5-D Continuum Sensitivity Analysis.** *E. Jung*[1], K. Seo[1] and I. Park[1] *1. Sungkyunkwan University, Suwon-si, The Republic of Korea*
View Digest Text

EQ-08. **Frequency Sensitivity Analysis of Magnetoquasistatic System with Voltage or Current Excitation.** *S. Rho*[1] and I. Park[1] *1. Department of Electrical and Computer Engineering, Sungkyunkwan University, Suwon, The Republic of Korea*
View Digest Text

EQ-12. **Optimal Shape Design of Permanent Magnet Synchronous Motor to Reduce Cogging Torque and Torque Ripple.** *H. Koo*[1], I. Yun[1], H. Hong[1], C. Jo[1] and J. Lee[1] *1. Department of Electrical Engineering, Hanyang University, Seoul, The Republic of Korea*
View Digest Text

EQ-14. **Performances of direct drive and magnetically geared PMSMs with different cooling technologies.** S. Mezani[1], T.A. Marcand[1], C. Bonnard[1] and *N. Takorabet*[1] *1. Laboratoire GREEN - FST, Université de Lorraine, Vandoeuvre lès Nancy CEDEX, France*
View Digest Text

Session ER
SPIN-ORBIT TORQUES AND RELATED PHENOMENA (Poster Session)

Mathias Kläui, Chair
Universität Mainz, Mainz, Germany

ER-01. **Orbital Current Driven Magnetic Memory.** *Y. Yao*[1], D. Zhu[1], S. Lu[1], H. Zhang[1], D. Xiong[2], H. Liu[2], K. Cao[2] and W. Zhao[1] *1. School of Integrated Circuit Science and Engineering, Beihang University, Beijing, China; 2. Truth Memory Corporation, Beijing, China*
View Digest Text

ER-02. **Spin-charge interconversion in oxides for low-power memory and logic devices.** *P. Sgarro*[1], A. Kandazoglou[1], M. Cosset-Cheneau[1], W. Savero-Torres[1], S. Teresi[1], T. Frottier[1], M. Culot[1], S. Auffret[1], M. Bibes[2], J. Attané[1] and L. Vila[1] *1. CEA-SPINTEC, Grenoble, France; 2. Laboratoire Albert Fert, Paris, France*
View Digest Text

ER-05. **Non-Volatile Electric-Field Control of Spin-Orbit Torques in Perpendicular Ferromagnet - SrTiO3 System.** C. Grezes[1], *P. Sgarro*[1], A. Kandazoglou[1], M. Cosset-Cheneau[1], L. Vicente Arche[3], P. Noël[2], S. Auffret[1], K. Garello[1], M. Bibes[3], L. Vila[1] and J. Attané[1] *1. CEA-SPINTEC, Grenoble, France; 2. ETH Zurich, Zurich, Switzerland; 3. Laboratoire Albert Fert, Paris, France*
View Digest Text

ER-03. **Spin-orbit torque driven Skyrmion Hall effect-like motion of stripe domains in the perpendicularly magnetized system.** *S. Maji*[1], I. Bhat[1] and P. Anil Kumar[1] *1. Department of Physics, Indian Institute of Science, Bangalore, Bengaluru, India*
View Digest Text

ER-04. **Ferromagnetic material as dominant spin source achieving field-free SOT switching.** *S. Liu*[1], C. Wan[1], G. Yu[1] and X. Han[1] *1. Institute of Physics, Chinese Academy of Sciences, Beijing, China*
View Digest Text

ER-07. **Exploring Interatomic Exchange Interactions in Noncollinear Magnetic Configurations.** J. Silva[2,3], *R. Cardias Alves de Almeida*[4,1], A. Bergman[5], A. Szilva[5], Y. Kvashnin[5], J. Fransson[5], A.B. Klautau[2], O. Eriksson[5,6], A. Delin[4,6] and L. Nordström[5] *1. Instituto de Física, Universidade Federal Fluminense, Niterói, Brazil; 2. Universidade Federal do Pará, Belém, Brazil; 3. Instituto Federal do Pará, Óbidos, Brazil; 4. KTH Royal Institute of Technology, Stockholm, Sweden; 5. Uppsala University, Uppsala, Sweden; 6. Wallenberg Initiative Materials Science for Sustainability, Uppsala University, Uppsala, Sweden*
View Digest Text

ER-08. **Zr thickness dependence of perpendicular magnetic anisotropy and spin-orbit torques in the W/CoFeB/Zr/MgO multilayers.** *T. Zhu*[1] *1. Institute of Physics, Chinese Academy of Sciences, Beijing, China*
View Digest Text

ER-09. **Field-free spin-orbit torque switching in conically magnetized free layer nanomagnet.** P.K. Mishra[1] and *S. Bhuktare*[1] *1. Department of Electrical Engineering, Indian Institute of Technology, Tirupati, India*
View Digest Text

ER-10. **Understanding the Influence of Capping Layer on Spin Wave Modes: An In-Depth Investigation with a Custom Time-Resolved Magneto-Optical Kerr Effect (TR-MOKE) Setup.** D. Ghosh[1], C. Dolai[1], S.S. Bodra[1] and *P. Datta*[1] *1. Physics, IIT Kharagpur, Kharagpur, India*
View Digest Text

EXHIBIT HALL

Session ES
HARD MAGNETIC MATERIALS III (Poster Session)

Matthew Kramer, Co-Chair
Ames National Laboratory, Ames, IA, United States
Alex Aubert, Co-Chair
Technische Universitat Darmstadt, Darmstadt, Germany

ES-01. **The potential of $SmCo_4B$-based compounds as a permanent magnet.** *P. Tozman*[1], A. Aubert[1], K. Skokov[1], H. Sepehri-Amin[2], Y. Skourski[3], Y. Ishii[4], Y. Matsuda[4] and O. Gutfleisch[1] *1. Functional Materials, Technical Unviesity of Darmstadt, Darmstadt, Germany; 2. National Institute for Materials Science (NIMS), Tsukuba, Japan; 3. Helmholtz-Zentrum Dresden–Rossendorf, Dresden, Germany; 4. The University of Tokyo, Kashiwa, Japan*
View Digest Text

ES-02. **Transforming Highly Corroded Scrap Magnets into Coercive Powders.** *S.X. Lima*[2], M.A. Rosa[2], J.C. Ronchi[2], S.M. Souza[1], Q.H. Rebelo[1], P.O. Junior[3], R.D. Souza[3] and P.A. Wendhausen[2] *1. UFAM, Manaus, Brazil; 2. Magnetic Materials Laboratory, Federal University of Santa Catarina, Florianópolis, Brazil; 3. Laboratory-Factory of Magnets and Rare-earth Alloys (LabFabITR), Lagoa Santa, Brazil*
View Digest Text

ES-03. **The Role of Coercivity on Texture Assessment of Nd-Fe-B Magnets via Magnetometry Technique.** *L. Quispe*[1], L.F. Antunes[1], A. Baldárrago-Alcántara[1], L. Luza-Mamani[1], L. Ulian Lopes[1], S.M. Souza[2] and P.A. Wendhausen[1] *1. Magnetic Materials Laboratory, Federal University of Santa Catarina, Florianopolis, Brazil; 2. Department of Materials Physics, Federal University of Manaus, Manaus, Brazil*
View Digest Text

ES-04. **The detrimental effect on the magnetic properties of Nd-Fe-B magnets subjected to high-temperature treatment (1000 °C) during grain boundary diffusion.** *M.B. Dias*[1,2], G. Shimizu[2], L. Azevedo[2], D. Rodrigues Jr[2], W.C. Macedo[3], L.F. Antunes[3], L. Ulian Lopes[3], P.A. Wendhausen[3] and F. Landgraf[3] *1. SENAI SP College, Osasco, Brazil; 2. University of São Paulo, São Paulo, Brazil; 3. Federal University of Santa Catarina, Florianópolis, Brazil*
View Digest Text

ES-05. **Recycling Nd-Fe-B End-of-Life Magnets with Different Levels of Oxidation Using the Magnet-to-Magnet Approach.** *W.C. Macedo*[1], L.F. Antunes[1], B. Fertig[1], C.F. Sampietro[1], D.A. Silva[1], N.V. Junior[1], S.M. Souza[2] and P.A. Wendhausen[1] *1. Magnetic Materials Laboratory, Federal University of Santa Catarina, Florianópolis, Brazil; 2. Department of Materials Physics, Federal University of Amazonas, Manaus, Brazil*
View Digest Text

ES-06. **Using Nanocrystalline HDDR Powders in the Additive Manufacturing of Bonded Nd-Fe-B Magnets.** B. Fertig[1], *M.A. Rosa*[1], G. Vieira[2], M. Martins[2], C. Ahrens[1], M.V. da Luz[1], A. Mascheroni[3], J.M. Mascheroni[3] and P.A. Wendhausen[1] *1. Magnetic Materials Laboratory, Federal University of Santa Catarina, Florianópolis, Brazil; 2. Center for the Development of Nuclear Technology, Belo Horizonte, Brazil; 3. Alkimat, São José, Brazil*
View Digest Text

ES-07. **Towards Recycling of Nd–Fe–B Permanent Magnets in a Circular Economy.** A. Paksoy[1], A. Khan[1], A. Durgun[1], M. Hasan[2], M. Schönfeldt[1,2], I. Radulov[2], J. Gassmann[2], *I. Dirba*[1] and O. Gutfleisch[1] *1. Institute of Materials Science, TU Darmstadt, Darmstadt, Germany; 2. Magnetic Materials, Fraunhofer IWKS, Hanau, Germany*
View Digest Text

ES-08. **Effect of particle size on magnetic properties of $SmCo_5$ powder prepared by ball-milling process.** *K. Park*[1] and Y. Hirayama[1] *1. National Institute of Advanced Industrial Science and Technology (AIST), Nagoya, Japan*
View Digest Text

ES-09. **Synthesis of size-controlled and dispersible $Sm_2Fe_{17}N_3$ particles by reduction diffusion.** *Z. Yang*[1], J. Xi[1] and M. Yue[1] *1. Beijing University of Technology, Beijing, China*
View Digest Text

ES-10. **Development of bonded α″-$Fe_{16}N_2$ permanent magnet.** *M. Grigoras*[1], M. Lostun[1], G. Ababei[1], G. Stoian[1] and N. Lupu[1] *1. National Institute of Research and Development for Technical Physics, Iasi, Romania*
View Digest Text

ES-12. **Evaluating the magnetic hardening of Nd-Fe-B magnets after grain boundary diffusion: a layer by layer approach.** *L.F. Antunes*[1], L. Quispe[1], W.C. Macedo[1], M.B. Dias[3], L. Ulian Lopes[1], S.M. Souza[2] and P.A. Wendhausen[1] *1. Universidade Federal de Santa Catarina, Florianópolis, Brazil; 2. Universidade Federal do Amazonas, Manaus, AM, Brazil; 3. Universidade de São Paulo, São Paulo, Brazil*
View Digest Text

ES-13. **Magnetic coupling on multilayer of NdFeB/Dy films grown by magnetron sputtering.** *A.C. Krohling*[1], L. Fernandez Outon[2] and J. Ardisson[1] *1. Department of Physics, Nuclear Technology Development Center, Belo Horizonte, Brazil; 2. Department of Physics, Universidade Federal de Minas Gerais, Belo Horizonte, Brazil*
View Digest Text

ES-11. **Enhancement of the magnetic performance of Nd-Fe-B sintered magnets through novel powder modification.** *M. Zhu*[1], Y. Wang[1], Q. Sun[1], Y. Fang[1] and W. Li[1] *1. Central Iron & Steel Research Institute, Beijing, China*
View Digest Text

ES-14. **Strategies for ultra-limited utilization of heavy rare-earth Tb in Ce magnets with high Ce-content: synergistic diffusion mechanism of Pr.** *M. Zhu*[1], X. Song[1], Q. Sun[1], Y. Fang[1] and W. Li[1] *1. Central Iron & Steel Research Institute, Beijing, China*
View Digest Text

OCEANIA IV & V

Session FA
MAGNONIC MATERIALS AND DEVICES

Santa Pile, Co-Chair
Johannes Kepler University Linz, Linz, Austria
Jaroslaw Klos, Co-Chair
Adam Mickiewicz University, Poznan, Poland

8:30

FA-01. **All-on-chip approach towards quantum magnonic devices.** ***(Invited)*** *O. Santos*[1,2] and C. Ciccarelli[1] *1. Cavendish Laboratory, University of Cambridge, Cambridge, United Kingdom; 2. Zernike Institute for Advanced Materials, University of Groningen, Gronigen, Netherlands*
View Digest Text

9:00

FA-02. **Magnon transport in YIG/GGG at millikelvin temperatures for quantum magnonics.** ***(Invited)*** *A. Chumak*[1] *1. Faculty of Physics, University of Vienna, Vienna, Austria*
View Digest Text

9:30

FA-03. **Magnon Quantum Effects in Magnon Junction and Heterojunction.** ***(Invited)*** *X. Han[1,2,3] 1. Beijing National Laboratory for Condensed Matter Physics, Institute of Physics, Chinese Academy of Sciences, Beijing, China; 2. Center of Materials Science and Optoelectronics Engineering, University of Chinese Academy of Sciences, Beijing, China; 3. Songshan Lake Materials Laboratory, Dongguan, China*
View Digest Text

10:00

FA-04. **Active control of spin waves in nanoscale magnonic devices.** ***(Invited)*** *H. Qin[1,2]* and S. van Dijken[1] *1. NanoSpin, Department of Applied Physics, Aalto University, Helsinki, Finland; 2. School of Physics and Technology, Wuhan University, Wuhan, China*
View Digest Text

10:30

FA-05. **Thin-Film Magnomechanics.** ***(Invited)*** J. Xu[1], Y. Jiang[2], Z. Yan[2] and *X. Zhang[2] 1. University of Central Florida, Orlando, FL, United States; 2. ECE, Northeastern University, Boston, MA, United States*
View Digest Text

OCEANIA VI & VII

Session FB
NOVEL CHARACTERIZATION APPROACHES

Pedram Khalili, Chair
Northwestern University, Evanston, IL, United States

8:30

FB-01. **Antiferromagnetic and ferromagnetic domain and domain wall manipulation revealed using polarised x-ray imaging.** ***(Invited)*** *S.S. Dhesi[1] 1. Diamond Light Source Ltd, Didcot, United Kingdom*
View Digest Text

9:00

FB-02. **The photoemission microscopy end station at SIRIUS: an advanced instrument to investigate magnetism at surfaces.** *D. de Souza Chaves[1]*, J. Brandao[1], M.O. Gardingo[1] and J.C. Cezar[1] *1. LNLS, CNPEM, Campinas, Brazil*
View Digest Text

9:15

FB-04. **Optical heterodyne microscopy for addressing operating spin Hall nano-oscillator networks.** *A. Aleman*[1,2,3], A.A. Awad[1,4,5], A. Kumar[1,4,5], A. Houshang[1], S. Muralidhar[1], D. Hanstorp[3] and J. Akerman[1,4,5] *1. Applied Spintronics Group, University of Gothenburg, Gothenburg, Sweden; 2. NanOsc AB, Gothenburg, Sweden; 3. Atomic and Optical Physics, University of Gothenburg, Gothenburg, Sweden; 4. Center for Science and Innovation in Spintronics, Tohoku University, Sendai, Japan; 5. Research Institute of Electrical Communication, Tohoku University, Sendai, Japan*
View Digest Text

9:30

FB-05. **Ferris-wheel magneto-optic Kerr effect and optical Hall effect technique.** A. Rothschild[1], N. Am-Shalom[1], N. Bernstein[1] and *A. Capua*[1] *1. The Hebrew University of Jerusalem, Modiin, Israel*
View Digest Text

9:45

FB-06. **Magnetic field imaging of thin exfoliated iron halides flakes.** *F. Meneses*[1,2], R. Qi[3,4], A. Healey[1,2,5], Y. You[3,4], I. Robertson[5], S. Scholten[1,2], A. Keerthi[3,6], G. Harrison[7], A. Bera[4], H. Jyothilal[4], L. Hollenberg[1,2], B. Radha[3,4] and J. Tetienne[5] *1. School of Physics, University of Melbourne, Melbourne, VIC, Australia; 2. University of Melbourne, Centre for Quantum Computation and Communication Technology, Melbourne, VIC, Australia; 3. The University of Manchester, National Graphene Institute, Manchester, United Kingdom; 4. The University of Manchester, Department of Physics and Astronomy, Manchester, United Kingdom; 5. RMIT University, School of Science, Melbourne, VIC, Australia; 6. The University of Manchester, Department of Chemistry, Manchester, United Kingdom; 7. The University of Manchester, Department of Materials, Manchester, United Kingdom*
View Digest Text

10:00

FB-07. **Probing Low-Dimensional Magnetism with a Quantum Sensor.** ***(Invited)*** *A. Tan*[1] *1. Imperial College, London, United Kingdom*
View Digest Text

10:30

FB-08. **Advancing Kerr-Microscopy imaging of three-dimensional magnetic structures.** *C. Janzen*[1,2], B.B. Rakholiya[1], F. Ott[1], R. Huhnstock[1,2] and A. Ehresmann[1,2] *1. Institute of Physics and Center for Interdisciplinary Nanostructure Science and Technology (CINSaT), University of Kassel, Kassel, Germany; 2. Artificial Intelligence Methods for Experiment Design (AIM-ED), Joint Lab Helmholtzzentrum für Materialien und Energie, Berlin (HZB) and University of Kassel, Berlin, Germany*
View Digest Text

10:45

FB-09. **Imaging of Spin Textures and Spin Waves in 2D Magnets.** ***(Invited)*** F. Schulz[1], K. Litzius[1,2], L. Powalla[3], M. Birch[1,4], R. Gallardo[5], S. Satheesh[3], M. Weigand[6], T. Scholz[3], B. Lotsch[3], G. Schütz[3], M. Burghard[3] and *S. Wintz*[6] *1. Max Planck Institute for Intelligent Systems, Stuttgart, Germany; 2. University Augsburg, Augsburg, Germany; 3. Max Planck Institute for Solid State Research, Stuttgart, Germany; 4. RIKEN Center for Emergent Matter Science, Wako, Japan; 5. Universidad Tecnica Federico Santa Maria, Valparaiso, Chile; 6. Helmholtz-Zentrum Berlin für Materialien und Energie, Berlin, Germany*
View Digest Text

OCEANIA IX & X

Session FC
MAGNETISM FOR NICHE APPLICATIONS: SENSORS, ROBOTS, DRONES AND OTHER DEVICES

Susana Cardoso de Freitas, Chair
INESC Microsistemas e Nanotecnologias, Lisboa, Portugal

8:30

FC-03. **Generalized Reservoir Computing with Spin-torque Oscillator.** *Y. Imai*[1], T. Kubota[1], S. Tsunegi[2] and K. Nakajima[1] *1. The University of Tokyo, Bunkyo, Japan; 2. National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan*
View Digest Text

8:45

FC-04. **A Blinking Detection System Based on Magnetic Sensor and Magnetic Hair Array.** J. Man[1,2], Z. Jin[1] and *J. Chen*[1,2,3] *1. 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; 3. College of Materials Sciences and Opto-Electronic Technology, University of Chinese Academy of Sciences, Beijing, China*
View Digest Text

9:00

FC-05. **IMU-based Robotic Finger Force Sensing with Modular Soft Actuators.** S. Lin[1], H. Chang[1] and *J. Chang*[1,2] *1. Department of Power Mechanical Engineering, National Tsing Hua University, Hsinchu, Taiwan; 2. National Formosa University, Huwei Township, Taiwan*
View Digest Text

9:15

FC-06. **Modeling of Magnetic Separation of Metal Ions in Aqueous Solutions.** *P. Andrei*[1] and N. Carlstet[1] *1. Florida State University, Tallahassee, FL, United States*
View Digest Text

9:30

FC-07. **Magnetic Small-Scale Robots: A Path Towards Minimally Invasive Medicine.** ***(Invited)*** *S. Pané*[1] *1. ETH Zurich, Zürich, Switzerland*
View Digest Text

10:00

FC-08. **Biotemplated Magnetic Composites for Microrobotic Applications.** *A. Veciana*[1], G. Llauradó-Capdevila[2], C. Franco[1], S. Pané[1] and J. Puigmartí-Luis[2] *1. Institute of Robotics and Intelligent Systems, ETH Zurich, Zurich, Switzerland; 2. Institut de Química Teòrica i Computacional, Universitat de Barcelona, 2Departament de Ciència de Materials i Química Física, Barcelona, Spain*
View Digest Text

10:15

FC-09. **Two-dimensional fractionally magnetized quantum ferromagnet.** *S. Miyahara*[1] and I. Maruyama[2] *1. Fukuoka University, Fukuoka, Japan; 2. Fukuoka Institute of Technology, Fukuoka, Japan*
View Digest Text

10:30

FC-10. **Towards realization of diamondtronics in doped diamond.** R. Raj[1], S. Chatterjee[1], D. Das[1], D. Kumar[1] and *M.R. Rao*[1] *1. Department of Physics, Quantum Centre of Excellence for Diamond and Emergent Materials (QuCenDiEM), India Centre for Lab-Grown Diamond (InCent-LGD), Nano Functional Materials Technology Center and Materials Science Research Center, Indian Institute of Technology, Madras, Chennai, India*
View Digest Text

OCEANIA I & II

Session FD
ANTIFERROMAGNETIC/FERRIMAGNETIC SPINTRONICS AND DOMAIN WALL DEVICES

Kim Kong Tham, Chair
Tanaka Kikinzoku Kogyo, Sendai, Japan

8:30

FD-01. **Piezomagnetic switching of the anomalous Hall conductivity in an antiferromagnet at room temperature.** ***(Invited)*** *O. Tchernyshyov*[1] and S. Nakatsuji[2] *1. Department of Physics and Astronomy, Johns Hopkins University, Baltimore, MD, United States; 2. Institute for Solid State Physics, The University of Tokyo, Tokyo, Japan*
View Digest Text

9:00

FD-02. **Spin Flop Near the Compensation Temperature of a Sperimagnet.** J. Coey[1], K. Rode[1] and *P. Stamenov*[1] *1. Department of Physics, Trinity College Dublin, Dublin, Ireland*
View Digest Text

9:15

FD-03. **Measurement of the Orbital Hall Effect in Pure Cu and Al by Spin-Torque- and Microwave- Optical Ferromagnetic-Resonance Techniques.** *Y. Ben Tal*[1], N. Am-Shalom[1], A. Rothschild[1], N. Bernstein[1] and A. Capua[1] *1. The Hebrew University in Jerusalem, Jerusalem, Israel*
View Digest Text

9:30

FD-04. **Magneto-optical detection of spin-orbit torque vector with first-order Kerr effects.** *C. Gonzalez-Fuentes*[1] and M. Abellan[2] *1. Department of Physics, Pontificia Universidad Católica de Chile, Santiago, Chile; 2. Department of Physics, Universidad Técnica Federico Santa María, Valparaíso, Chile*
View Digest Text

9:45

FD-05. **Exploiting the non-linear dynamics of defect-induced pinning in vortex-based magnetic tunnel junctions for physical unclonable functions.** *A. Jenkins*[1], L. Martins[1], L. Benetti[1], A. Schulman[1], P. Anacleto[1], M. Claro[1], E. Paz[1], I. Caha[1], F.L. Deepak[1] and R. Ferreira[1] *1. Spintronics, International Iberian Nanotechnology Laboratory, Braga, Portugal*
View Digest Text

10:00

FD-07. **Enabling synthetic antiferromagnets in nanoscale domain wall devices.** *D. Giuliano*[1,2], Y. Canvel[3], Y. Li[3], A. Palomino Lopez[3], G. Talmelli[3], R. Carpenter[3], S. Rao[1], C. Fleischmann[3], K. Wostyn[3], K. Temst[2], V. Nguyen[3] and S. Couet[3] *1. MADE, Imec, Leuven, Belgium; 2. Department of Physics and Astronomy, KU Leuven, Leuven, Belgium; 3. Imec, Leuven, Belgium*
View Digest Text

10:15

FD-08. **Control of the Moving Direction of Magnetic Domain Walls by Surface Acoustic Waves.** *A. Rivelles*[1], R. Guedas[2], R. Yanes[3], L. Torres[3], R. Izquierdo[1], M.C. Maicas[1], M. Sanz[1], J. Pedrós[1], F. Calle[1], J. Prieto[1] and L. Lopez-Diaz[3] *1. ISOM-Universidad Politécnica de Madrid, Madrid, Spain; 2. CEA-SPINTEC, Grenoble, France; 3. Universidad de Salamanca, Salamanca, Spain*
View Digest Text

10:30

FD-09. **Multifunctional In-Sensor Computing Based on Phase-Change Controlled Magnetic Tunnel Junction.** *C. Lv*[1,2], X.L. Lin[1,2] and W. Zhao[1,2] *1. National Key Lab of Spintronics, Institute of International Innovation, Beihang University, Hangzhou, China; 2. Fert Beijing Institute, MIIT Key Laboratory of Spintronics, Beihang University, Beijing, China*
View Digest Text

Session FE
LINEAR MACHINES AND FIELD MODULATING MACHINES

Jonathan Bird, Co-Chair
Portland State University, Portland, OR, United States
Kenji Nakamura, Co-Chair
Tohoku University, Sendai, Japan
Chinweze Ubadigha, Co-Chair
National Cheng Kung University, Tainan, Taiwan

8:30

FE-01. **Air-cored Linear Motor: Design and Operating Behavior.** *T. Hofmann*[1], D. Radeck[1] and A. Jocher[1] *1. Department of Aerospace and Geodesy, Technical University of Munich, Garching bei München, Germany*
View Digest Text

8:45

FE-02. **Torque-to-Weight Ratio Improvement and Permanent Magnet Usage Reduction in Large-Scale Magnetic Gears for Wind Power Generation.** *T. Sumi*[1], A. Okazaki[1], K. Nakamura[1], T. Shinji[2] and K. Takeda[2] *1. Graduate School of Engineering, Tohoku University, Sendai, Japan; 2. TDK Corporation, Tokyo, Japan*
View Digest Text

9:00

FE-03. **Design of a linear motor: An optimization approach considering motor and inverter losses with different voltage waveforms.** *A.A. Espindola*[1,2], M. Lungareze Neto[2], N.J. Batistela[1] and N. Sadowski[1] *1. Department of Electrical Engineering, UFSC, Florianópolis, Brazil; 2. Research and Development, Nidec GA, Joinville, Brazil*
View Digest Text

9:15

FE-04. **Harnessing Magnetic-Field Driven Actuation for Microscale Motion in MEMS-Inspired Device.** *L. Cestarollo*[1] and A. El-Ghazaly[2] *1. Department of Materials Science and Engineering, Cornell University, Ithaca, NY, United States; 2. Department of Electrical and Computer Engineering, Cornell University, Ithaca, NY, United States*
View Digest Text

9:30

FE-05. **Real-time identification of the impact frequency in a DTH electric drilling rig through time-frequency analysis of the motor current.** *D. Brito*[1], Y. Millalonco[1], S. Vergara[1] and G. Ramírez[1] *1. Departamento de Ingenieria Electrica, Universidad Católica de la Santísima Concepción, Concepción, Chile*
View Digest Text

9:45

FE-07. **A planar ironless permanent magnet generator for inertial sea wave energy conversion.** *M. Trapanese*[1] *1. Dipartimento di Ingegneria, Universita di Palermo, Palermo, Italy*
View Digest Text

10:00

FE-08. **Magnetic and Thermal Modelling of Hollow Conductors for Improved Cooling and Force Density of Coreless Linear Motors.** *S. Geelen*[1], M. Curti[1] and E. Lomonova[1] *1. Department of Electrical Engineering, Eindhoven University of Technology, Eindhoven, Netherlands*
View Digest Text

10:15

FE-09. **Prototype Verification Cross-pole shape Flux Reversal Motor.** *Y. Yu*[1] *1. Graduate School of Engineering, Tohoku University, Sendai, Japan*
View Digest Text

EUROPA II

Session FF
TOPOLOGICAL INSULATORS, WEYL AND DIRAC SEMIMETALS

Jiadong Zang, Co-Chair
University of New Hampshire, Durham, NH, United States
Hao Zeng, Co-Chair
University of Buffalo, Buffalo, NY, United States

8:30

FF-01. **Weyl semimetal based spin-orbit torque and energy harvesting devices.** ***(Invited)*** G. Shi[1], Y. Liu[1], F. Wang[1], D. Kumar[1] and *H. Yang*[1] *1. National University of Singapore, Singapore*
View Digest Text

9:00

FF-02. **Room temperature field-free switching of CoFeB/MgO heterostructure based on large-scale few-layer WTe_2.** *X. Wang*[1], H. Wu[2], R. Qiu[1], X. Huang[1], J. Zhang[3], J. Long[4], Y. Yao[1], Y. Zhao[1], Z. Zhu[4], J. Wang[3], S. Shi[1], H. Chang[2] and W. Zhao[1] *1. Beihang University, Beijing, China; 2. Huazhong University of Science and Technology, Wuhan, China; 3. Suzhou Institute of Nano-Tech and Nano-Bionics (SINANO),Chinese Academy of Sciences, Suzhou, China; 4. ShanghaiTech University, Shanghai, China*
View Digest Text

9:15

FF-03. **Spin and Orbital Moments of Magnetic Topological Insulator $MnBi_2Te_4$ Epitaxial Thin Films.** *J. Sun*[1,2], S. Liu[3,4], F. Xiu[3,4] and W. Liu[1,5] *1. Department of Electronic Engineering, Royal Holloway University of London, Egham, United Kingdom; 2. Beijing Superstring Academy of Memory Technology, Beijing, China; 3. State Key Laboratory of Surface Physics and Department of Physics, Fudan University, Shanghai, China; 4. Institute for Nanoelectronic Devices and Quantum Computing, Fudan University, Shanghai, China; 5. Department of Electrical Engineering and Electronics, University of Liverpool, Liverpool, United Kingdom*
View Digest Text

9:30

FF-05. **Spin-Orbit Torque Switching of Mn_3Sn in Configuration II.** Z. Xu[1], X. Zhang[1], Y. Qiao[1], G. Liang[2,3], S. Shi[4] and *Z. Zhu*[1] *1. School of Information Science and Technology, ShanghaiTech University, Shanghai, China; 2. Department of Electrical and Computer Engineering, National University of Singapore, Singapore; 3. Industry Academia Innovation School, National Yang-Ming Chiao Tung University, Hsinchu City, Taiwan; 4. Fert Beijing Institute, MIIT Key Laboratory of Spintronics, School of Integrated Circuit Science and Engineering, Beihang University, Beijing, China*
View Digest Text

9:45

FF-06. **Graphene intercalation in topological insulator/ferromagnet heterostructures for efficient spin orbit torques.** *T. Guillet*[1], V. Zatko[1], R. Galceran[2], J. Sierra[1] and S.O. Valenzuela[1,3] *1. Catalan Institute of Nanoscience and Nanotechnology, Barcelona, Spain; 2. Universitat de Barcelona, Barcelona, Spain; 3. Institució Catalana de Recerca i Estudis Avançats (ICREA), Barcelona, Spain*
View Digest Text

10:00

FF-07. **Highly Efficient Spin-Orbit Torque Switching in Bi_2Se_3/Fe_3GeTe_2 van der Waals Heterostructures.** ***(Invited)*** *C. Li*[1] *1. Naval Research Lab, Washington, DC, United States*
View Digest Text

10:30

FF-08. **Efficient spin to charge current conversion using the Topological Insulator BiSb.** S. Massabeau[1], L. Vicente Arche[1], N. Figueiredo-Prestes[1], D. She[1,2], G. Patriarche[2], A. Lemaitre[2], M. Morassi[2], F. Bertran[3], P. Le Fevre[4], S. Dhillon[5], N. Reyren[1], M. Bibes[1], R. Lebrun[1], H. Jaffrès[1] and *J. George*[1] *1. Laboratoire Albert Fert, Centre National de la Recherche Scientifique, Palaiseau, France; 2. Université Paris-Saclay, CNRS, Centre de Nanosciences et de Nanotechnologies, CNRS, Palaiseau, France; 3. Synchrotron SOLEIL, L'Orme des Merisiers, Saint Aubin, France; 4. Institut de Physique de Rennes, CNRS, Rennes, France; 5. Laboratoire de Physique de l'Ecole Normale Supérieure, ENS, CNRS, Paris, France*
View Digest Text

10:45

FF-09. **Interaction Effects in a 1D Flat Band at a Topological Crystalline Step Edge.** *S. Das*[1], F. Kuester[1], P. Sessi[1] and S. Parkin[1] *1. NISE, Max Planck Institute of Microstructure Physics, Halle, Germany*
View Digest Text

EUROPA IV

Session FG
MAGNETO-CALORIC MATERIALS AND DEVICES

Ekkes Brück, Co-Chair
TU Delft, Delft, Netherlands
Fanny Béron, Co-Chair
Universidad Estadual de Campinas, Campinas, Brazil

8:30

FG-01. **First-order phase transition kinetics on magnetocaloric materials - a chicken and egg tale.** ***(Invited)*** A. Beleza[1], R. Almeida[1], B. Beckmann[2], A. dos Santos[4], P. Álvarez-Alonso[3], J.P. Araújo[1], M. Frontzek[4], J.L. Sanchez Llamazares[5], J. Amaral[6], O. Gutfleisch[2], K. Skokov[2], A.M. Abeykoon[7] and *J.H. Belo*[1] *1. Departamento de Física e Astronomia da Faculdade de Ciências da Universidade do Porto, IFIMUP, Porto, Portugal; 2. TU Darmstadt, Darmstadt, Germany; 3. Departamento de Física, Universidad de Oviedo, Oviedo, Spain; 4. Neutron Scattering Division, Oak Ridge National Laboratory, Oak Ridge, TN, United States; 5. Instituto Potosino de Investigación Científica y Tecnológica A.C., San Luis Potosí, Mexico; 6. Department of Physics and CICECO, University of Aveiro, Aveiro, Portugal; 7. National Synchrotron Light Source II, Brookhaven National Laboratory, Upton, NY, United States*
View Digest Text

9:00

FG-02. **Phase Shift in AC Magnetocaloric Effect Measurements as an Indicator of the Order of Magnetic Phase Transitions.** *A. Aliev*[1], A. Gamzatov[1] and Z. Alisultanov[2,3] *1. Laboratory of Low Temperature Physics and Magnetism, Amirkhanov Institute of Physics of Dagestan Federal Research Centre of RAS, Makhachkala, Russian Federation; 2. Amirkhanov Institute of Physics of Dadestan Federal Research Centre RAS, Makhachkala, Russian Federation; 3. Abrikosov Center for Theoretical Physics, MIPT — Moscow Institute of Physics and Technology, Dolgoprudnyi, Russian Federation*
View Digest Text

9:15

FG-03. **Hysteresis and Kinetics of the First-Order Phase Transition: Losses in Magnetocaloric Effect Illustrated on the Ni-Mn-Ga-Cu.** *E. Dilmieva*[1], Y. Koshkid'ko[2], A.P. Kamantsev[3], D. Zhao[4], J. Liu[5] and S. Krämer[6] *1. High Field Magnet Laboratory, Radboud University, Nijmegen, Netherlands; 2. Institute of Low Temperature and Structure Research of Polish Academy of Sciences, Wroclaw, Poland; 3. Kotelnikov Institute of Radioengineering and Electronics of Russian Academy of Sciences, Moscow, Russian Federation; 4. Hebei Key Laboratory of Photophysics Research and Application, College of Physics, Hebei Normal University, Shijiazhuang, China; 5. CAS Key Laboratory of Magnetic Materials and Devices, Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences, Ningbo, China; 6. Laboratoire National des Champs Magnétiques Intenses, CNRS, Univ Grenoble Alpes, Univ Toulouse, Grenoble, France*
View Digest Text

9:30

FG-04. **Reducing Energy Waste by Tuning Martensite in Heusler Alloys.** *A.A. Mendonça*[1], L. Ghivelder[2], P. Bernando[3], L.F. Cohen[4] and A. Gomes[2] *1. Instituto de Física Gleb Wataghin, Universidade Estadual de Campinas, Campinas, Brazil; 2. Instituto de Física, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil; 3. Instituto de Física, Universidade Estadual Norte Fluminense Darcy Ribeiro, Campos dos Goytacazes, Brazil; 4. Department of Physics, Imperial College London, London, United Kingdom*
View Digest Text

9:45

FG-05. **Simultaneous Multi-Property Analysis of Magneto-Structural Transitions at ESRF ID12.** *A. Aubert*[1], K. Skokov[1], G. Gomez[2,3], F. Wilhelm[2], H. Wende[3], A. Rogalev[2], K. Ollefs[3] and O. Gutfleisch[1] *1. Technische Universitat Darmstadt, Darmstadt, Germany; 2. ESRF, Grenoble, France; 3. Faculty of Physics, University of Duisburg-Esse, Duisburg, Germany*
View Digest Text

10:00

FG-06. **Long-time aging of La(Fe,Si,Mn)$_{13}$H$_Z$ microparticles using different fluids for magnetic refrigeration systems.** A.M. Döring[2,1], D.D. Reif[2], M.A. Rosa[3], *G. Fidelis Peixer*[3], F. Maccari[1], K. Skokov[1], O. Gutfleisch[1], P.A. Wendhausen[3], J.A. Lozano[3], J. Riso Barbosa Jr.[3] and C.D. Teixeira[2] *1. TU Darmstadt, Darmstadt, Germany; 2. Universidade Federal de Santa Catarina, Blumenau, Brazil; 3. Universidade Federal de Santa Catarina, Florianópolis, Brazil*
View Digest Text

10:15

FG-07. **Design of Magnetic Circuits for Magnetocaloric Refrigeration via Topology Optimization.** L.P. Cattelan[1], *G. Fidelis Peixer*[1], M. da Luz[2], J. Riso Barbosa Jr.[1] and J.A. Lozano[1] *1. Department of Mechanical Engineering, Federal University of Santa Catarina, Polo, Florianópolis, Brazil; 2. Department of Electrical Engineering, Federal University of Santa Catarina, Florianópolis, Brazil*
View Digest Text

10:30

FG-08. **Performance Evaluation of TRL-6 Magnetic Refrigeration Prototypes.** *G. Fidelis Peixer*[1], A.T. Dias Nakashima[1], N. Maleski de Sá[1], Y. Azeredo[1], A. Lorenzoni[1], G. Melo da Luz[1], R. Sawaya Sucaria[1], A. Marciel Döring[2], P. Vitor de Faria[1], B. Peressoni Vieira[1], C. Silva Teixeira[2], J.A. Lozano[1] and J. Riso Barbosa Jr.[1] *1. Department of Mechanical Engineering, Federal University of Santa Catarina, Polo, Florianópolis, Brazil; 2. Department of Materials Engineering, Federal University of Santa Catarina, Lab3M, Blumenau, Brazil*
View Digest Text

10:45

FG-09. **Magnetic and Calorimetric Properties in EuSe and EuSe$_{0.93}$S$_{0.07}$ Compounds.** *J. Caro Patiño*[1], D. Neto[2] and A. Gomes[2] *1. Instituto de Física, Universidade do Estado do Rio de Janeiro, Rio de Janeiro, Brazil; 2. Instituto de Física, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil*
View Digest Text

11:00

FG-10. **On the magnetic and magnetocaloric features of La$_{2/3}$Sr$_{1/3}$MnO$_3$-based materials: from bulk to nano.** *M. Balli*[1,2], O. Chdil[1], M. Abbasi[2] and P. Fournier[2] *1. International University of Rabat, Rabat, Morocco; 2. Institut Quantique, Université de Sherbrooke, Sherbrooke, QC, Canada*
View Digest Text

11:15

FG-11. **Topological Nernst effect of Skyrmions in the Filled β-Mn-type $Fe_{2-x}Pd_xMo_3N$ Chiral Magnetic Epitaxial Thin Films.** *B. Qiang*[1], K. Yamamoto[1], H. Asano[1], T. Miyamachi[1] and M. Mizuguchi[1] *1. Nagoya University, Nagoya, Japan*
View Digest Text

OCEANIA IV & V

Session GA
MAGNETIC SENSOR STANDARDIZATION

Philip Keller, Chair
Metrolab Technology S.A., Plan-les-Ouates, Switzerland

2:00

GA-01. **Withdrawn**

2:00

GA-02. **Low-field, small footprint field magnetoresistive sensors compatible with large scale process integration.** ***(Invited)*** *S. Cardoso de Freitas*[1,2], R. Macedo[1], P. Araujo[1,2], E. Bastiana[2], M. Silva[1,2] and P. Freitas[1,2] *1. INESC Microsistemas e Nanotecnologias, Lisboa, Portugal; 2. Department of Physics, Instituto Superior Tecnico/Universisade de Lisboa, Lisboa, Portugal*
View Digest Text

2:30

GA-03. **Magnetic measurement system and environmental magnetic field compensation at CEM.** ***(Invited)*** *S. Moltó González*[1], Y.A. Sanmamed[1] and J. Díaz de Aguilar[1] *1. Department of Electricity and Energy, Centro Español de Metrología, Tres Cantos, Spain*
View Digest Text

3:00

GA-04. **Tunable TMR sensors with magnetically-engineered – order/disorder – sensing layers.** ***(Invited)*** *M. Rasly*[1,2,3], T. Nakatani[1] and Y. Sakuraba[1] *1. Research Center for Magnetic and Spintronic Materials, National Institute for Materials Science (NIMS), Tsukuba, Japan; 2. Nano-scale Electron Devices Lab, Electronics for Informatics, Hokkaido University, Sapporo, Japan; 3. Electronic and Magnetic Materials Department, Central Metallurgical Research and Development Institute, Helwan, Egypt*
View Digest Text

3:30

GA-05. **Flexible, printed and eco-sustainable magnetic field sensors.** ***(Invited)*** *Y. Zabila*[1], L. Guo[1], E. Oliveros-Mata[1], R. Xu[1] and D. Makarov[1] *1. HZDR, Dresden, Germany*
View Digest Text

4:00

GA-06. **Characterisation of Magnetic Sensors for Space Applications – an NMI Perspective.** ***(Invited)*** *S. Harmon*[1], G. Finch[1] and A. Wilson[1] *1. National Physical Laboratory, Teddington, United Kingdom*
View Digest Text

OCEANIA VI & VII

Session GB
MULTILAYERS, SURFACE AND INTERFACE PHENOMENA

Kleber Pirota, Chair
University of Campinas, Campinas, Brazil

2:00

GB-01. **Doped surfaces: a synthetic route to low damping in ferromagnetic transition metal thin films.** ***(Invited)***
S. Azzawi[1,2], A. Umerski[3], L. Sampaio[4], S. Bunyaev[5], G.N. Kakazei[5] and *D. Atkinson*[1] *1. Durham University, Durham, United Kingdom; 2. Meters and Custody Transfer Department, Technical Directorate, Ministry of Oil, Baghdad, Iraq; 3. School of Mathematics and Statistics, Open University, Milton Keynes, United Kingdom; 4. Centro Brasileiro de Pesquisas Físicas (CBPF), Rio de Janeiro, Brazil; 5. IFIMUP/Department of Physics and Astronomy, Universidade do Porto, Porto, Portugal*
View Digest Text

2:30

GB-03. **The impact of Fe^{2+} and Fe^{3+} segregation on the structural and magnetic properties of ZnO/Fe multilayers deposited via sputtering: a study using EELS and EDS.** *R. Checca*[1], D. Franceschini[2], E.M. Saitovitch[1] and Y. Xing[2] *1. Brazilian Center for Research in Physics, Rio de Janeiro, Brazil; 2. Instituto de Física, Universidade Federal Fluminense, Niteroi, Brazil*
View Digest Text

2:45

GB-04. **Thermal stability of FeCo-Ag multilayer thin films for use in magnetoelectric heterostructures.** *T.R. Mion*[1], M. Staruch[2], K. Bussmann[2] and P. Finkel[2] *1. Nova Research, Alexandria, VA, United States; 2. Material Science & Technology Division, US Naval Research Laboratory, Washington, DC, United States*
View Digest Text

3:00

GB-05. **Antiferromagnetic Interlayer Exchange Coupled Multilayers.** *E. Darwin*[1], R. Tomasello[2], P. Shepley[3], N. Satchell[4], M. Carpentieri[2], G. Finocchio[5], B.J. Hickey[3] and H.J. Hug[1,6] *1. EMPA, Zurich, Switzerland; 2. Politecnico di Bari, Bari, Italy; 3. University of Leeds, Leeds, United Kingdom; 4. Texas State University, San Marcos, TX, United States; 5. Università di Messina, Messina, Italy; 6. University of Basel, Basel, Switzerland*
View Digest Text

3:15

GB-06. **Magnetic Properties Dependence on Geometrical Parameters of Electroless-plated Ni-based Rhombohedral Nanotubes.** F. Muench[1], S. Schaefer[1], M. Mendez[2], J. Fernández-Roldán[2], A.S. Gonzalez[2], V. Vega[2], U. Kunz[1], W. Ensinger[1], J. Garcia[2] and *V.M. Prida*[2] *1. Technical University of Darmstadt, Darmstadt, Germany; 2. Departamento Física, Universidad de Oviedo, Oviedo, Spain*
View Digest Text

3:30

GB-07. **Comparison of techniques for the quantitative determination of the interfacial Dzyaloshinskii-Moriya interaction in ultrathin magnetic films.** ***(Invited)***
M. Kuepferling[1], C.H. Back[2], A. Casiraghi[1], L. Chen[2], A. Di Pietro[1,3], G. Durin[1], F. García Sánchez[4], B.J. Hickey[5], C. Hwang[6], G. Jakob[7], M. Kläui[7], M. Madami[8], A. Magni[1], C. Marrows[5], H. Nembach[11,9], V. Puliafito[10], J.M. Shaw[9], G. Soares[1], S. Tacchi[12] and G. Carlotti[8] *1. INRIM, Istituto Nazionale di Ricerca Metrologica, Torino, Italy; 2. Technische Universitat Munchen, Garching, Germany; 3. Politecnico di Torino, Torino, Italy; 4. Departamendo de Fisica Aplicada, Universidad de Salamanca, Salamanca, Spain; 5. School of Physics and Astronomy, University of Leeds, Leeds, United Kingdom; 6. KRISS, Korea Reserach Institute of Standards and Science, Daejeon, The Republic of Korea; 7. Institute of Physics, Johannes Gutenberg University, Mainz, Germany; 8. Dipartimento di Fisica e Geologia, University of Perugia, Perugia, Italy; 9. Applied Physics Division, National Institute of Standards and Technology, Boulder, CO, United States; 10. Dipartimento di Ingegneria Elettrica e dell'Informazione, Politecnico di Bari, Bari, Italy; 11. Department of Physics, University of Colorado at Colorado Springs, Colorado Springs, CO, United States; 12. CNR, Istituto Officina dei Materiali, Perugia, Italy*
View Digest Text

4:00

GB-08. **Bridging Simulation and Experiment: Tuning Dimensional Order in FeCo Magnetic Nanostructures.** *Y. Chen*[1], H. Zhang[2] and A. El-Ghazaly[3] *1. Department of Materials Science and Engineering, Cornell University, Ithaca, NY, United States; 2. School of Applied and Engineering Physics, Cornell University, Ithaca, NY, United States; 3. Department of Electrical and Computer Engineering, Cornell University, Ithaca, NY, United States*
View Digest Text

4:15

GB-09. **Electronic and magnetic properties of atomically-thin epitaxially-grown van der Waals ferromagnet Cr_2Te_3.** ***(Invited)*** *S. Mo*[1] *1. Advanced Light Source, Lawrence Berkeley National Laboratory, Berkeley, CA, United States*
View Digest Text

OCEANIA IX & X

Session GC
HIGH FREQUENCY, MICROWAVE AND MILLIMETER WAVE MATERIALS AND DEVICES

Andrei Slavin, Co-Chair
Oakland University, Rochester Hills, MI, United States
Alexey Ustinov, Co-Chair
St. Petersburg Electrotechnical University, St.Petersburg, Russian Federation

2:00

GC-01. **Low-moment Ferrimagnets for Spintronic Devices for Operation in the High-GHz and THz Frequency Ranges.** ***(Invited)*** *P.S. Stamenov*[1], J. Coey[1] and K. Rode[1] *1. School of Physics and CRANN, Trinity College Dublin, Dublin, Ireland*
View Digest Text

2:30

GC-02. **IoT-Oriented Single-Transmitter Multiple-Receiver Wireless Charging Systems Using Hybrid Multi-Frequency Pulse Modulation.** *Y. Gong*[1], Z. Zhang[1,2], Y. Wu[1] and Y. Gu[1] *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

2:45

GC-03. **Self-induced magnetic anisotropy in 3D printed ferromagnetic composites.** A. Le Saos-Kauten[1,2], A. Chevalier[1], A. Maalouf[1], A. Hoez[1], J. Ville[2], J. Mattei[1] and *V. Laur*[1] *1. Lab-STICC / University of Brest, Brest, France; 2. IRDL / University of Brest, Brest, France*
View Digest Text

3:00

GC-04. **Magnonic Physical Reservoir Computing.** ***(Invited)***
M. Kostylev[1] and S. Watt[1] *1. University of Western Australia, Crawley, WA, Australia*
View Digest Text

3:30

GC-10. **Complex permeability of noise suppression sheets up to 40 GHz evaluated with the improved shielded loop coil type permeameter.** T. Nakamura[1], Y. Sato[1], A. Itagaki[1], Y. Miyazawa[2], S. Yabukami[3] and *M. Yamaguchi*[2] *1. R&D Department, Ryowa Electronics Inc., Sendai, Japan; 2. New Industry Creation Hatchery Center, Tohoku University, Sendai, Japan; 3. Department of Biomedical Engineering, Tohoku University, Sendai, Japan*
View Digest Text

3:45

GC-07. **Realization of a Current-Controlled Magnonic Physical Reservoir.** *A.B. Ustinov*[1], R.V. Haponchyk[1] and M. Kostylev[2] *1. Dept. of Physical Electronics and Technology, St. Petersburg Electrotechnical University, St.Petersburg, Russian Federation; 2. Department of Physics, University of Western Australia, Perth, WA, Australia*
View Digest Text

4:00

GC-08. **Tri-layered Nanohollowspheres: An Interesting Approach to Superior Electromagnetic Wave Absorption.** *A. Gorai*[1] and K. Mandal[1] *1. Department of Condensed Matter and Materials Physics, Satyendra Nath Bose National Centre for Basic Sciences, Kolkata, India*
View Digest Text

4:15

GC-09. **Ka to V Microwave band tunable Barium Hexaferrite based Band-Stop Notch Filter.** V. Sharma[1] and *B.K. Kuanr*[2] *1. Department of Physics, Northeastern University, Boston, MA, United States; 2. Special Centre for Nanoscience, Jawaharlal Nehru University, New Delhi, India*
View Digest Text

4:30

GC-05. **Parallel line type permeameter for thick magnetic material to reduce the error of demagnetizing field.** *S. Yabukami*[1,2], A. Mashiko[1] and K. Okita[2] *1. Tohoku University, Sendai, Japan; 2. Tohoku-TMIT, Sendai, Japan*
View Digest Text

OCEANIA I & II

Session GD
ANTIFERROMAGNETIC SPINTRONICS WITH SKYRMIONS AND TEXTURES

Kun-Rok Jeon, Chair
Chung-Ang University (CAU), Seoul, The Republic of Korea

2:00

GD-01. **Progress and Perspectives on Silicon-compatible Antiferromagnetic Memory Devices.** ***(Invited)*** *P. Khalili*[1] *1. Northwestern University, Evanston, IL, United States*
View Digest Text

2:30

GD-02. **From Magnetostatics to Topology: Antiferromagnetic Vortex States in NiO-Fe Nanostructures.** *M. Slezak*[1], T. Wagner[2], O. Gomonay[2], V. Bharadwaj[2], A. Koziol Rachwal[1], T.O. Mentes[3], A. Locatelli[3], M. Zajac[4], D. Wilgocka-Slezak[5], P. Drozdz[6] and T. Slezak[1] *1. AGH University of Science and Technology, Krakow, Poland; 2. Institute of Physics, Johannes Gutenberg-University, Mainz, Germany; 3. Elettra - Sincrotrone Trieste S.C.p.A., Basovizza, Trieste, Italy; 4. National Synchrotron Radiation Centre SOLARIS, Jagiellonian University, Krakow, Poland; 5. Jerzy Haber Institute of Catalysis and Surface Chemistry PAS, Krakow, Poland; 6. Institute of Physics, Maria Curie-Sklodowska University, Lublin, Poland*
View Digest Text

2:45

GD-03. **Antiferromagnetic exchange coupling across transition metal filmsalloyed with ferromagnetic elements.** *D. Legut*[1,2], S. Arapan[1], K. Winther[3], Z.R. Nunn[3], J. Lisik[3], F. Schulz[4], E. Goering[4], T. Mckinnon[3], S. Myrtle[3] and E. Girt[3] *1. IT4Innovations, VSB - Technical University of Ostrava, Ostrava, Czechia; 2. Charles University in Prague, Prague, Czechia; 3. Simon Fraser University, Burnaby, BC, Canada; 4. Max Planck Institute for Intelligent Systems, Stuttgart, Germany*
View Digest Text

3:00

GD-04. **Electrical full switching of non-collinear antiferromagnetic order.** ***(Invited)*** *K. Kondou*[1], T. Higo[2], T. Nomoto[2], M. Shiga[3], S. Sakamoto[3], X. Chen[3], D. Nishio-Hamane[3], R. Arita[2], Y. Otani[3], S. Miwa[3] and S. Nakastsuji[2] *1. RIKEN, Wako, Japan; 2. The University of Tokyo, Bunkyo-ku, Japan; 3. Institute for Solid State Physics, University of Tokyo, Kashiwa, Japan*
View Digest Text

3:30

GD-05. **Antiferromagnetic Spin Structures beyond Skyrmions: antiferromagnetic merons and antimerons in synthetic antiferromagnets.** M. Bhukta[1], T. Dohi[1,2], V. Bharadwaj[1], R. Zarzuela[1], M. Syskaki[1], M. Foerster[3], M. Angel[3], J. Sinova[1], R. Frömter[1] and *M. Kläui*[1] *1. Universität Mainz, Mainz, Germany; 2. RIEC, Tohoku University, Sendai, Japan; 3. ALBA, Barcelona, Spain*
View Digest Text

3:45

GD-06. **Anomalous Hall effect in Altermagnetic RuO_2 Thin Films.** *R.D. Gonzalez Betancourt*[1,2], T. Tschirner[1,3], P. Kessler[3,4], T. Kotte[5], D. Kriegner[2,6], B. Buchner[1,3,6], J. Dufouleur[1], M. Kamp[8], V. Jovic[9], L. Smejkal[2,7], J. Sinova[2,7], R. Claessen[3,4], T. Jungwirth[2,10], S. Moser[3,4], H. Reichlova[2,6] and L. Veyrat[1,3,4] *1. Leibniz Institute for Solid State and Materials Research (IFW) Dresden, Dresden, Germany; 2. Institute of Physics of the Czech Academy of Sciences, Prague, Czechia; 3. Würzburg-Dresden Cluster of Excellence ct.qmat, Würzburg, Germany; 4. Physikalisches Institut, Universität Würzburg, Würzburg, Germany; 5. HLD-EMFL, Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany; 6. Institute of Solid State and Materials Physics, Technische Universität Dresden, Dresden, Germany; 7. Johannes Gutenberg Universität of Mainz, Mainz, Germany; 8. Physikalisches Institut, Universität Würzburg, Würzburg, Germany; 9. Earth Resources and Materials, Institute of Geological and Nuclear Science, Lower Hutt, New Zealand; 10. School of Physics and Astronomy, University of Nottingham, Nottingham, United Kingdom*
View Digest Text

4:00

GD-07. **Narrowband THz Emission from a Single Antiferromagnetic Cycloid $BiFeO_3$ Thin Film.** *S. Massabeau*[1], A. Abdelsamie[1,2], P. Dufour[1], A. Finco[2], M. Viret[3], K. Bouzehouane[1], V. Jacques[2], J. Chauleau[3], J. George[1], H. Jaffrès[1], S. Fusil[1], R. Lebrun[1] and V. Garcia[1] *1. Laboratoire Albert Fert, CNRS, University of Paris-Sud, Paris, France; 2. Laboratoire Charles Coulomb, Université de Montpellier, CNRS, Montpellier, France; 3. SPEC, CEA, CNRS, Université Paris-Saclay, Gif-sur-Yvette, France*
View Digest Text

4:15

GD-08. **Anomalous Nernst effect of altermagnetic Mn_5Si_3.** *A. Badura*[1], W. Campos[2], V. Bharadwaj[2], J. Rial[3], I. Kounta[4], L. Michez[4], J. Zemen[5], F. Krizek[1], S. Sailler[6], M. Leiviskä[1], V. Baltz[3], D. Kriegner[1], T. Jungwirth[1], L. Smejkal[2], S. Goennenwein[6] and H. Reichlova[1] *1. Institute of Physics ASCR, v. v. i., Prague, Czechia; 2. Institut für Physik, Johannes Gutenberg Universität, Mainz, Germany; 3. Univ. Grenoble Alpes, CNRS, CEA, Grenoble INP, Spintec, Grenoble, France; 4. Aix-Marseille University, CNRS, CINaM, Marseille, France; 5. Faculty of Electrical Engineering, Czech Technical University, Prague, Czechia; 6. Universität Konstanz, Fachbereich Physik, Konstanz, Germany*
View Digest Text

4:30

GD-09. **Antiferromagnetic Skyrmions: from enhancing deterministic motion control to boosting thermal skyrmion diffusion.** *M. Kläui*[1], T. Dohi[1,2], M. Bhukta[1], F. Kammerbauer[1], M. Syskaki[1], K. Raab[1], M. Weissenhofer[3], S. Wintz[4], R. Frömter[1], G. Jakob[1] and U. Nowak[3] *1. Universität Mainz, Mainz, Germany; 2. RIEC, Tohoku University, Sendai, Japan; 3. University of Konstanz, Konstanz, Germany; 4. HZB, Berlin, Germany*
View Digest Text

4:45

GD-10. **First-Order Reversal Curve (FORC) Features of Ferrimagnetic and Antiferromagnetic Coupled Skyrmions.** L.S. Palhares[1,2], J. Brandao[2] and *F. Béron*[1] *1. Instituto de Física Gleb Wataghin, Universidad Estadual de Campinas, Campinas, Brazil; 2. Laboratório Nacional de Luz Síncrotron, Centro Nacional de Pesquisa em Energia e Materiais, Campinas, Brazil*
View Digest Text

Session GE
PERMANENT MAGNET, HIGH-SPEED, WOUND-FIELD, INDUCTION AND RELUCTANCE MACHINES

Min-Fu Hsieh, Co-Chair
National Cheng Kung University, Tainan, Taiwan
Po-Wei Huang, Co-Chair
National Cheng Kung University, Tainan, Taiwan

2:00

GE-02. **Relationship between Temperature Control and Iron Loss Reduction by Secondary Current Heating Method.** *Y. Tsuchida*[1] and T. Yano[1] *1. Oita University, Oita, Japan*
View Digest Text

2:15

GE-05. **Transverse Flux Topology for High Efficiency Solutions.** *C. Schmitz*[1] and D. Schmitz[1] *1. Research and Product Development – R&D, WEG, Jaraguá do Sul, Brazil*
View Digest Text

2:30

GE-08. **Design and Analysis of a High-Speed Slotless Permanent Magnet Synchronous Motor Considering Air-Gap Airflow.** *M. Guo*[1], G. Cao[1], H. Hu[1], S. Huang[1], H. Wang[1] and J. He[2] *1. Guangdong Key Laboratory of Electromagnetic Control and Intelligent Robots, College of Mechatronics and Control Engineering, Shenzhen University, Shenzhen, China; 2. Department of Electrical and Computer Engineering, University of Kentucky, Lexington, KY, United States*
View Digest Text

2:45

GE-09. **Development of Magneto-Thermo-Mechanical Analytical Models for High-Speed Induction Machine.** *L. Dahnoun*[1,2], J. Fontchastagner[1], C. Viguier[2] and N. Takorabet[1] *1. GREEN, Université de Lorraine, Nancy, France; 2. Safran Tech, Magny-lès-Hameaux, France*
View Digest Text

3:00

GE-11. **Hybrid Three-Layer Sub-Harmonic Synchronous Machine using Consequent Pole Permanent Magnets.**
S. Rafin[1], Q. Ali[2], F. Zhao[3] and *O.A. Mohammed*[1]
1. Department of Electrical and Computer Engineering, Florida International University, Miami, FL, United States; 2. Department of Electrical Engineering, Sukkur IBA University, Sukkur, Pakistan; 3. School of Mechanical Engineering and Automation, Harbin Institute of Technology, Shenzhen, China
View Digest Text

EUROPA II

Session GF
AMORPHOUS AND NANOCRYSTALLINE SOFT MAGNETIC MATERIALS

Massimo Pasquale, Chair
INRIM, Torino, Italy

2:00

GF-01. **Impact of conventional and ultra-rapid annealing on microstructure and coercivity of Ni-rich nanocrystalline Fe-Ni-Nb-B alloys.** ***(Invited)*** *I. Skorvanek*[1], J. Marcin[1], B. Kunca[1] and P. Svec[2] *1. Institute of Experimental Physics, Slovak Academy of Sciences, Kosice, Slovakia; 2. Institute of Physics, Slovak Academy of Sciences, Bratislava, Slovakia*
View Digest Text

2:30

GF-02. **The Effects of B/Si Ratio on the Surface Crystals and Magnetic Properties of $Fe_{80}(B_aSi_b)_{15}C_1Cu_1Nb_3$ Nanocrystal Soft Magnetic Alloys.** *S. An*[1,2], H. Im[1,2], K. Kim[1], S. Yang[1], J. Lee[2] and J. Jeong[1] *1. Metal Powder Department, Korea Institute of Materials Science, Changwon, The Republic of Korea; 2. Department of Materials Science and Engineering, Pusan National University, Pusan, The Republic of Korea*
View Digest Text

2:45

GF-03. **Effect of Nb/ Zr co-additing on the microstructures and soft magnetic properties of $Fe_{77.5}Si_{11.5}B_7Nb_xZr_{3-x}Cu_1$ nanocrystalline Alloys.** *H. Im*[1,2], S. An[1,2], J. Lee[2], K. Kim[1], S. Yang[1] and J. Jeong[1] *1. Korea Institute of Materials Science, Changwon-si, The Republic of Korea; 2. Pusan National University, Pusan, The Republic of Korea*
View Digest Text

3:00

GF-04. **Magnetic and structural properties of nanocrystalline FeCuNbSiB thin films.** *J.M. Alves*[1], N. Checca[1], D. Gonzalez-Chavez[1], B.G. Silva[1] and R.L. Sommer[1] *1. Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, Brazil*
View Digest Text

3:15

GF-05. **Local Magnetization Processes at Constricted Regions in Amorphous $Fe_{80}B_{20}$ Stripes with Nanometric Thicknesses.** J.M. González[1], U. Urdiroz[1], M. Alonso[1], F. Palomares[1], R. Fernandez-Jimenez[1], *J. Soler-Morala*[1], F. Cebollada[2], M. Sánchez-Agudo[2], A. Gómez[3], M. Magaz[3], I. Soldatof[4] and R. Schäffer[4] *1. Nanoscience and Nanotechnology, ICMM-CSIC, Madrid, Spain; 2. POEMMA-CEMDATIC, ETSIT-UPM, Madrid, Spain; 3. Centro de Astrobiología, CSIC-INTA, Torrejón de Ardoz, Spain; 4. Leibniz Institute for Solid State and Materials Research (IFW), Dresden, Germany*
View Digest Text

3:30

GF-06. **Effect of Magnetostatic Interaction on the Single Domain Wall Propagation in Magnetic Microwires.** P. Corte-Leon[1,2,3], A. Gonzalez Villegas[1,2,3], J. Blanco[2,3], V. Zhukova[1,2,3], M. Ipatov[1,2] and *A. Zhukov*[1,4,2] *1. Dept. Polymers and Advanced Materials, University of Basque Country, UPV/EHU, San Sebastian, Spain; 2. Dept. Applied Physics, University of Basque Country, EIG, UPV/EHU, San Sebastian, Spain; 3. EHU Quantum Center, University of the Basque Country, UPV/EHU, San Sebastian, Spain; 4. Ikerbasque, Basque Foundation for Science, San Sebastian, Spain*
View Digest Text

3:45

GF-07. **Measurement of Magnetic Barkhausen Noise on Alloy Foils Used for Inductor Core in Power Electronics Applications.** *S. Tamaru*[1] and T. Yamazaki[2] *1. RCECT, Sangyo Gijutsu Sogo Kenkyujo Tsukuba Chuo, Tsukuba, Japan; 2. Department of Materials Science and Technology, Tokyo University of Science, Katsushika, Japan*
View Digest Text

4:00

GF-08. **The Study the Characteristics the Magnetic Response of Microspirals Made of an Amorphous Magnetic Alloy.** *L. Shendrikova*[1], Y. Alekhina[1], A. Shalygin[1] and N.S. Perov[1] *1. Lomonosov Moscow State University, Moscow, Russian Federation*
View Digest Text

4:15

GF-10. **Magnetic Properties of Amorphous Fe-Si-Cr-B-C Alloy by Melt-spinning and Selective Laser Melting for Electrical Machines.** *P. Tiberto*[1], P. Sharangi[1], G. Barrera[1], E. Ferrara[1], A. Ghavimi[2], R. Busch[2], I. Gallino[3,2], M. Rodriguez[4], M. Perez Prado[4], L. Thorsson[5] and H. Wachter[5] *1. INRIM, Torino, Italy; 2. Saarland University, Saarbrücken, Germany; 3. TU Berlin, Berlin, Germany; 4. IMDEA, Madrid, Spain; 5. AMLOY GmbH, Karlstein, Germany*
View Digest Text

4:30

GF-11. **Effect of heavy metal (HM) stacking on magnetic anisotropy of HM/CoFeB/MgO structures.** *S. Ahn*[1] *1. POSTECH, Pohang, The Republic of Korea*
View Digest Text

EUROPA IV

Session GG
THIN FILMS AND SURFACE EFFECTS

Juliano Denardin, Chair
Universidad de Santiago, Santiago, Chile

2:00

GG-01. **Voltage-controlled Spintronics Heterostructures for Magnetoelectric Memory and Stochastic Computing Applications. *(Invited)*** *K. Wang*[1,2] *1. Department of Electrical and Computer Engineering, University of California, Los Angeles, Los Angeles, CA, United States; 2. Department of Physics and Astronomy, University of California, Los Angeles, Los Angeles, CA, United States*
View Digest Text

2:30

GG-02. **Engineering nanocolumnar magnetic films with temperature.** M. Garrido-Segovia[1,2], E. Navarro[2,3], A. Espinosa[4] and *J. García-Martín*[1] *1. Instituto de Micro y Nanotecnología, CSIC, Tres Cantos, Spain; 2. Física de Materiales, Universidad Complutense de Madrid, Madrid, Spain; 3. Instituto de Magnetismo Aplicado, Las Rozas, Spain; 4. Instituto de Ciencia de Materiales de Madrid, CSIC, Madrid, Spain*
View Digest Text

2:45

GG-03. **Room Temperature Covalent 2D Magnet $FeSe_x$.** *C. Huai*[1], M. Bian[1], R. Sabirianov[2] and H. Zeng[1] *1. Department of Physics, University at Buffalo, Buffalo, NY, United States; 2. Department of Physics, University of Nebraska-Omaha, Omaha, Omaha, NE, United States*
View Digest Text

3:00

GG-04. **Direct Observation of Domain Configurations in Elongated Antidots Lattices at Different Applied Fields.** *J.L. Palma*[1,6], A. Pereira[2], R. Alvaro[3], S. Michea[4], J. Garcia-Martin[3] and J. Escrig[5,6] *1. Engineering School, Universidad Central de Chile, Santiago, Chile; 2. Universidad Adolfo Ibañez, Santiago, Chile; 3. IMN-CNM, Instituto de Micro y Nanotecnología, Madrid, Spain; 4. Institute of Applied Sciences, Universidad Autónoma de Chile, Santiago, Chile; 5. Departamento de Física, Universidad de Santiago, Santiago, Chile; 6. CEDENNA, Center for the Development of Nanoscience and Nanotechnology, Santiago, Chile*
View Digest Text

3:15

GG-05. **Magnetic and transport properties in ion-irradiated Cr_2AlC.** *J. Salgado Cabaco*[1,2], U. Kentsch[1], F. Long[1], F. Ganss[1], J. Lindner[1], J. Fassbender[1,3], C. Leyens[2], R. Bali[1] and R. Boucher[2] *1. Institute of Ion Beam Physics and Materials Research, Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany; 2. Technische Universität Dresden, Institute of Materials Science, Dresden, Germany; 3. Technische Universität Dresden, Institute of Solid State and Materials Physics, Dresden, Germany*
View Digest Text

3:30

GG-06. **Hard-axis collapse and recoil-curve overshoot in thin magnetic films.** A. M. H. de Andrade[1], L. F. S. Azeredo[1,2], H. Acosta[1] and *J. Geshev*[1] *1. Institute of Physics, UFRGS, Porto Alegre, Brazil; 2. Instituto Federal Sul-rio-grandense, Santana do Livramento, Brazil*
View Digest Text

3:45

GG-07. **Monitoring Iron Oxide Thin Film Growth by Plasma Emission Spectrometry in Reactive Sputtering Process.** R. Minami[1], E. Kita[1], S. Sharmin[1] and *H. Yanagihara*[1,2] *1. University of Tsukuba, Tsukuba, Japan; 2. Tsukuba Research Center for Energy Materials Science (TREMS), University of Tsukuba, Tsukuba, Japan*
View Digest Text

4:00

GG-08. **Structural and magnetic properties of ultrathin films calculated from first-principles.** J.N. Rychly-Gruszecka[1], J. Marciniak[1], J. Snarski-Adamski[1], J. Meixner[1], W. Marciniak[1], J. Rusz[2] and *M. Werwinski*[1] *1. Department of Theory of Nanostructures and Quantum Materials, Institute of Molecular Physics, Polish Academy of Sciences, Poznan, Poland; 2. Department of Physics and Astronomy, Uppsala University, Uppsala, Sweden*
View Digest Text

4:15

GG-09. **Thin film epitaxial [111] $Co_{50}Pt_{50}$: structure, magnetization, and spin polarization.** *N. Satchell*[1,2], S. Gupta[2], M. Maheshwari[2], P. Shepley[2], M. Rogers[2], O. Cespedes[2] and G. Burnell[2] *1. Department of Physics, Texas State University, San Marcos, TX, United States; 2. School of Physics and Astronomy, University of Leeds, Leeds, United Kingdom*
View Digest Text

4:30

GG-11. **Spin-triplet supercurrent optimization in ferromagnetic Josephson junctions.** *R.M. Klaes*[1] and N.O. Birge[1] *1. Department of Physics and Astronomy, Michigan State University, East Lansing, MI, United States*
View Digest Text

DIGITAL CONFERENCE RESOURCE CENTER

Session VP1
FIELD MODULATED MACHINES (Poster Virtual Session)

Mohamed Ibrahim, Co-Chair
University of Ghent, Gent, Belgium
Metin Aydin, Co-Chair
Kocaeli University, Umuttepe, Izmit, Turkey

VP1-01. **Research on Stator Loss Suppression of a Dual-Rotor Flux-Modulated PM Motor based on Harmonic Directional Reduction.** *Z. Xiang*[1] and H. Qian[1] *1. School of Electrical and Information Engineering, Jiangsu University, Zhenjiang, China*
View Digest Text

VP1-02. **A New Dual Stator Field Modulation Machine with Tangential Excitation Permanent Magnet.** *F. Bian*[1], M. LI[1] and Z. Li[1] *1. Zhongyuan University of Technology, Zhengzhou, China*
View Digest Text

VP1-03. **A New Radial Hybrid Consequent-Pole Permanent Magnet Vernier Machine.** *R. Yao*[1], H. Wang[1], Y. Sha[1], Y. Xu[1] and C. Feng[1] *1. Nanjing Normal University, Nanjing, China*
View Digest Text

VP1-04. **Improvement of Torque and Loss Characteristics for an In-Wheel Permanent Magnet Motor Based on Featured-Airgap-Harmonic.** J. Ren[1], *L. Quan*[1] and Z. Xiang[1] *1. Department of Electrical Engineering, School of Electrical and Information Engineering, Jiangsu University, Zhenjiang, China*
View Digest Text

VP1-05. **Design and Analysis of a High Torque Performance Dual-Side PM Vernier Motor with Synergetic Modulation Enhancement.** *Z. Xiang*[1] and S. Gui[1] *1. School of Electrical and Information Engineering, Jiangsu University, Zhenjiang, China*
View Digest Text

VP1-06. **Torque Quality Improvement Design and Analysis of Bi-Directional Magnetic Field Modulation PM Motor By Multi-Harmonic Flux-Barrier Modulator.** H. Tian[1], *D. Fan*[1], X. Zhu[1], W. Shan[1] and Z. Xiang[1] *1. Jiangsu University, Zhenjiang, China*
View Digest Text

VP1-07. **Comparative analysis Between Split Stator Permanent Magnet Machine and Flux Reverse Machine.** C. Zhang[1], H. Wang[1] and *C. He*[1] *1. Nanjing Normal University, Nanjing, China*
View Digest Text

VP1-08. **A Multi-Modular Magnetic Millirobot with a Variable Equilibrium Posture Capability.** *Y. Lee*[1], J. Lee[1] and S. Jeon[1,2] *1. MESL, Department of Mechanical and Automotive Engineering, Kongju National University, Cheonan, The Republic of Korea; 2. GITECH, Cheonan, The Republic of Korea*
View Digest Text

VP1-09. **Parametric Sensitivity Analysis and Efficiency improvement of Electromagnetic Repulsion Mechanism based on Orthogonal Experiment Design.** W. Yang[1], *F. Meng*[1] and D. Wu[1] *1. Harbin Institute of Technology, Harbin, China*
View Digest Text

VP1-10. **Research on the Performance of Bidirectional Field Modulation Machine with Separated Type PM Excitation with Different slot-pole Combinations.** Y. Zhang[1], H. Wang[1], *C. He*[1] and H. Zhu[2] *1. Nanjing Normal University, Nanjing, China; 2. State Grid Anqing Power Supply Company, Anqing, China*
View Digest Text

VP1-11. **A Flux Reversal Permanent Magnet Motor with Uneven Magnetomotive Force Shift.** *H. Chen*[1], F. Xiao[1], Y. Du[1] and X. Zhu[1] *1. Jiangsu University, Zhenjiang, China*
View Digest Text

VP1-12. **Performance Improvement of Five-Phase Hybrid Excited Flux Switching Machine using Dual Stator Configuration.** *S. Bukhari*[1], M. Ali[2], J. Ikram[2], U. Bin Farooq[2] and S. Abbas[2] *1. Department of Electrical Engineering, Tampere University, Tampere, Finland; 2. COMSATS Institute of Information Technology, Islamabad, Pakistan*
View Digest Text

VP1-13. **Design of Winding Configuration for E-Core FSPM Motor Based on Synthesis EMF Vectors.** Y. Mao[1], F. Xiao[1], *Y. Du*[1], X. Zhu[1], L. Quan[1] and C. Zhang[1] *1. Jiangsu University, Zhenjiang, China*
View Digest Text

VP1-14. **Power factor Improvement Design and Investigation of V-Shaped PM Vernier Motor by Multiple Flux Modulation.** D. Pang[1], *X. Zhu*[1] and D. Fan[1] *1. School of Electrical and Information Engineering, Jiangsu University, Zhenjiang, China*
View Digest Text

VP1-15. **Analysis of Air-gap Field Modulation in Asymmetric Stator Tooth Bilateral-Excitation Flux Modulation Machine.** F. Zhao[1], *K. Yang*[1], R. Liu[1], J. Yu[1], S. Rafin[2], Q. Ali[4] and D. Chen[3] *1. Harbin Institute of Technology, Shenzhen, China; 2. Florida International University, Miami, FL, United States; 3. Shenyang University of Technology, Shenyang, China; 4. Sukkur IBA University, Sukkur, Pakistan*
View Digest Text

DIGITAL CONFERENCE RESOURCE CENTER

Session VP2
HARD MAGNETIC MATERIALS IV
(Poster Virtual Session)

Imants Dirba, Chair
TU Darmstadt, Darmstadt, Germany

VP2-01. **Efficient Grain Boundary Diffusion Technology in Sintered Nd-Fe-B Magnets: Nano-TbF_3 Powders Electrophoretic Suspension Preparation via Sand-Milling.** *M. Ji*[1], W. Liu[1], Z. Wang[1], H. Wu[1], Y. Li[1], D. Zhang[1] and M. Yue[1] *1. Beijing University of Technology, Beijing, China*
View Digest Text

VP2-02. **Preparation of Nd–Fe–B films via a low-temperature process.** *K. Higashi*[1], G. Tahara[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 City, Japan; 2. Tokyo Institute of Technology, Tokyo, Japan*
View Digest Text

VP2-03. **Optimization of the Performance of Permanent Magnet Motor by Selected Grain Boundary Diffusion with Different Dy and Tb Ratio.** *X. Lu*[1], W. Li[1], L. Zeng[2] and R. Pei[1,2] *1. Department of Electrical Engineering, Shenyang University of Technology, Shenyang, China; 2. Suzhou Inn-mag New Energy Ltd., Suzhou, China*
View Digest Text

VP2-04. **Short-time annealing enhancing the magnetic properties and microstructure uniformity of melt-spun (Nd,Pr)-Fe-B ribbons.** *L. Liu*[1], Y. Li[1], J. Wang[1], L. Liu[1], M. Bian[1], H. Zhang[1] and M. Yue[1] *1. Beijing University of Technology, Beijing, China*
View Digest Text

DIGITAL CONFERENCE RESOURCE CENTER

Session VP3
HIGH-SPEED, WOUND-FIELD, INDUCTION AND RELUCTANCE MACHINES II (Poster Virtual Session)

Shuangxia Niu, Chair
The Hong Kong Polytechnic University, Kowloon, Hong Kong

VP3-01. **Analysis of Air-gap Field Modulation Effect on Torque for 6-Slot 4-Pole High-Speed Permanent Magnet Machine.** *K. Li*[1], C. Wang[1,2], Y. Li[3] and Z. Zhang[4] *1. School of Electrical Engineering, Anhui Polytechnic University, WuHu, China; 2. Aote Langbo Elevator Co., Ltd, Huzhou, China; 3. School of Electrical Engineering and Automation, Anhui University, Hefei, China; 4. College of Automation Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, China*
View Digest Text

VP3-02. **Electromagnetic Vibration Improvement for a High-Speed Flat Wire PM Motor based on Optimal Magnetic-Pole-Boundary.** *J. Bai*[1], X. Zhu[1] and Z. Xiang[1] *1. School of Electrical and Information Engineering, Jiangsu University, Zhenjiang, China*
View Digest Text

VP3-03. **Design Considerations of High-speed PMSM with Nonuniform Two-Segment Halbach Magnet Array.** X. Xie[1], *C. Liao*[1] and Z. Zhang[1] *1. Department of Automation Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, China*
View Digest Text

VP3-04. **Novel Self-Excited Brushless Topology for Wound Field Vernier Machine.** *S. Bukhari*[1] *1. Department of Electrical Engineering, Tampere University, Tampere, Finland*
View Digest Text

VP3-05. **Design and Analysis of New Beveling Consequent Pole Hybrid Magnet Dual Stator Machines.** *Y. Sha*[1], H. Wang[1], R. Yao[1], Y. Xu[1] and J. Yang[1] *1. Nanjing Normal University, Nanjing, China*
View Digest Text

VP3-06. **Analysis and Comparison between Pole-Changing and Hybrid-Excited Flux Switching Motors.** *Z. He*[1], F. Xiao[1], Y. Du[1] and X. Zhu[1] *1. Jiangsu University, Zhenjiang, China*
View Digest Text

VP3-07. **Performance Improvement of the Brushless Wound-Rotor Vernier Machine by One-Fourth Sub-Harmonic Components of the Frequency.** *S. Bukhari*[1], U. Bin Farooq[2], J. Ikram[2], L. Khan[2] and T. Bashir[2] *1. Department of Electrical Engineering, Tampere University, Finland, Tampere, Finland; 2. COMSATS Institute of Information Technology, Islamabad, Pakistan*
View Digest Text

VP3-08. **Performance Analysis of Axial Flux Brushless Wound Rotor Synchronous Machine Utilizing Third Harmonic.** *S. Bukhari*[1], S. Abbas[2], J. Ikram[2], Z. Ayub[2] and A. Khan[2] *1. Department of Electrical Engineering, Tampere University, Finland, Tampere, Finland; 2. COMSATS Institute of Information Technology, Islamabad, Pakistan*
View Digest Text

VP3-09. **Rotor Inter-Turn Short Detection Based on the Stator Current Vector Modulus of the Excitation Machine.** L. Shi[1], Z. Zhang[1], J. Ma[1], W. Li[1], *R. Li*[1], X. Wu[1] and X. He[1] *1. School of Electrical and Mechanical Engineering, Xuchang University, Xuchang, China*
View Digest Text

VP3-10. **Rotor Barrier Shape Design Optimization of a Novel Synchronous Reluctance Machine with Grain-Oriented Electrical Steel.** *S. Zhang*[1], C. Liu[1], Y. Wang[1] and J. Zhu[2] *1. Hebei University of Technology, Tianjin, China; 2. University of Sydney, Sydney, NSW, Australia*
View Digest Text

VP3-11. **Research on the Relationship between the Distribution of High-Permeability Materials in Rotor and Characteristics of Magnetic Field in Machines.** *X. Liang*[1], M. Wang[1], Y. Liu[1], P. Zheng[1] and W. Li[1] *1. Harbin Institute of Technology, Harbin, China*
View Digest Text

VP3-12. **Suppression of External Alternating Field of HTS Excitation Coil in Homopolar Inductor Machine.** Y. Pan[1], J. Yang[1], *Q. Li*[1], S. Huang[1] and J. Ma[2] *1. Hunan University, Changsha City, China; 2. University of Bristol, Bristol, United Kingdom*
View Digest Text

VP3-13. **Analysis Method of Squirrel Cage Induction Motor for Traction Applications considering Slot Harmonics.** *C. Song*[1], D. Park[1] and M. Lim[1] *1. Hanyang University, Seoul, The Republic of Korea*
View Digest Text

VP3-14. **A Two-State Autonomous Resonant Coordinated Electromagnetic Speed Limiting System for Wind Power.** *J. Ma*[1], Z. Zhang[1], L. Shi[1], W. Li[1], X. Wu[1] and Y. Liang[1] *1. School of Electrical and Mechanical Engineering, Xuchang University, Xuchang, China*
View Digest Text

VP3-15. **Advanced Lumped Parameter Thermal Network for Modeling of Cooling Solutions in Electric Vehicle Motor Applications.** *A.J. Bourgault*[1], O. Taqavi[1], Z. Li[1], G. Byczynski[2] and N. Kar[1] *1. Department of Electrical Engineering, University of Windsor, Windsor, ON, Canada; 2. Nemak, Windsor, ON, Canada*
View Digest Text

VP3-16. **Performance Improvement of Brushless Exciter for Aircraft Wound Rotor Synchronous Machine Based on Magnetic Slot Wedge.** *W. Bian*[1], Z. Zhang[1], L. Li[1], J. Li[1] and Y. Li[1] *1. College of Automation Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, China*
View Digest Text

DIGITAL CONFERENCE RESOURCE CENTER

Session VP4
INTERDISCIPLINARY TOPICS IN MAGNETICS II (Poster Virtual Session)

Bruno Silva, Chair
Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, Brazil

VP4-01. **Local adjustment of the mechanical properties of a magnetically controlled airway stent by laser powder bed fusion.** *K. Schäfer*[1,2], M. Lutzi[1,2], M. Khan[1,2], L. Schäfer[1,2], I. Dirba[1,2], S. Bruns[3,2], I. Valizadeh[4,2], O. Weeger[4,2], C. Hartmann[5], M. Kupnik[5], E. Adabifiroozjaei[6], L. Molina-Luna[6], K. Skokov[1,2] and O. Gutfleisch[1,2] *1. Functional Materials, TU Darmstadt, Darmstadt, Germany; 2. Additive Manufacturing Center, Darmstadt, Germany; 3. Physical Metallurgy, Darmstadt, Germany; 4. Cyber-Physical Simulation, Darmstadt, Germany; 5. Measurement and Sensor Technology Group, Darmstadt, Germany; 6. Advanced Electron Microscopy, Darmstadt, Germany*
View Digest Text

VP4-02. **Magnetic Nanoparticles (MNPs) Based 2-Phase Memory Devices.** *R.A. Mendonsa*[1], S. Liang[2] and J. Wang[1,2] *1. Department of Electrical Engineering, University of Minnesota, Edina, MN, United States; 2. Department of Chemical Engineering and Materials Science, University of Minnesota, Minneapolis, MN, United States*
View Digest Text

VP4-03. **Magnetization mechanisms for the non-destructive evaluation of early-stage low temperature thermal oxidation in low-carbon steels.** *A. Mongshi*[1], Y. Tene Deffo[1], N. Mary[2], P. Tsafack[1], J. Mogniotte[3,4] and B. Ducharne[3,5] *1. Laboratory of Electrical Engineering and Computing (LEEC), University of Buea, P.O. Box 63, Buea, Cameroon, Buea, Cameroon; 2. Univ Lyon, INSA Lyon, UCBL1, CNRS, MATEIS UMR5510, F-69621 Villeurbanne, France, Villeurbanne, France; 3. Univ Lyon, INSA Lyon, LGEF EA682, 69621 Villeurbanne, France, Villeurbanne, France; 4. Hybria Institute of Business and Technologies, Ecully CAMPUS, 69130 Ecully, France, Ecully, France; 5. Univ Lyon, INSA Lyon, Centrale Lyon, UCBL1, Tohoku University, ELyTMaX IRL3757, Sendai 980-8577, Japan, Sendai, Japan*
View Digest Text

VP4-04. **Dynamics of the Shape of Magnetic Fluid Droplets under the Influence of a Magnetic Field: Experiment and Lattice Boltzmann Simulation.** *D. Kalyuzhnaya*[1], E. Sokolov[1], A. Pribylov[1], G. Zhukov[1], R. Politov[1] and P. Ryapolov[1] *1. Southwest State University, Kursk, Russian Federation*
View Digest Text

VP4-05. **Calculation of Mutual Inductance between Trapezoidal and Rectangular Coils with Angular Misalignment.** *D. Kim*[1], S. Lee[1] and D. Kim[1] *1. Department of Automotive Engineering, Yeungnam University, Gyeongsan, The Republic of Korea*
View Digest Text

VP4-06. **Wave-Driven Magnetic Levitation-Based Energy Harvesting.** *J. Park*[1], Y. Choi[1], N. Wereley[1] and A. Flatau[1] *1. Department of Aerospace Engineering, University of Maryland at College Park, College Park, MD, United States*
View Digest Text

VP4-07. **Research on Wireless Power Transfer Coil for Real-Time Body Temperature Telemetry System.** *T. Omori*[1], F. Sato[1], Y. Furuya[2] and S. Sasaki[2] *1. Graduate School of Engineering, Tohoku-Gakuin University, Tagajo, Japan; 2. Hikaridenshi Co., Ltd., Osaki, Japan*
View Digest Text

VP4-08. **A Comprehensive Study of Structural, Magnetic and Dielectric Properties in Fe^{3+} and Y^{3+} Substituted $NiCr_2O_4$.** *J. Barman*[1], S. Verma[1] and S. Ravi[1] *1. Department of Physics, Indian Institute of Technology Guwahati, Guwahati, India*
View Digest Text

VP4-09. **Comparative study of structural and magnetic properties of Nd_2CoMnO_6 compound.** *N. Nayak*[1] and S. Ravi[1] *1. Department of Physics, Indian Institute of Technology Guwahati, Guwahati, India*
View Digest Text

VP4-10. **Lateral modulation of magnetic anisotropy in multilayer by grayscale lithography followed by ion irradiation.** *D. Oshima*[2] and T. Kato[2,1] *1. Institute of Materials and Systems for Sustainability, Nagoya University, Nagoya, Japan; 2. Department of Electronics, Nagoya University, Nagoya, Japan*
View Digest Text

VP4-11. **Energy of a Fully Spin-Polarized Two-Dimensional Electron Gas Separated from its Jellium Neutralizing Background.** *O. Ciftja*[1] *1. Department of Physics, Prairie View A&M University, Prairie View, TX, United States*
View Digest Text

VP4-13. **Field-induced self-assembly and subsequent disaggregation of superparamagnetic iron oxide nanoparticles: insights from an image-based experimental approach.** *S. Ciannella*[1], B. Dodge[1], K. Wu[2], J. Wang[3] and J. Gomez-Pastora[1] *1. Department of Chemical Engineering, Texas Tech University, Lubbock, TX, United States; 2. Department of Electrical and Computer Engineering, Texas Tech University, Lubbock, TX, United States; 3. Department of Electrical and Computer Engineering, University of Minnesota, Minneapolis, MN, United States*
View Digest Text

VP4-14. **The Critical Behavior of Magnetization near the Curie Temperature in Highly Spin-Polarized Heusler Alloy $Co_2TiGa_{0.3}Sn_{0.7}$.** *H. Aoshima*[1], I. Shigeta[1], A. Nomura[2], K. Yubuta[2], T. Yamauchi[3], R. Umetsu[2], T. Kanomata[4] and M. Hiroi[1] *1. Department of Physics and Astronomy, Kagoshima University, Kagoshima, Japan; 2. Tohoku University, Sendai, Japan; 3. The University of Tokyo, Kashiwa, Japan; 4. Tohoku Gakuin University, Tagajo, Japan*
View Digest Text

VP4-16. **Restoration of Magnetic Order in Heavy Metal Doped Spin Glass.** *S. Samatham*[1], A.K. Patel[4], P. Khandelwal[2], S. Shravan Kumar Reddy[1], G. Babbadi[5], C.S. M[1], M. Patwari[3] and K. G. Suresh[2] *1. Department of Physics, Chaitanya Bharathi Institute of Technology, Hyderabad, Hyderabad, India; 2. Department of Physics, Indian Institute of Technology Bombay, Mumbai, India; 3. Department of Chemistry, Chaitanya Bharathi Institute of Technology, Hyderabad, India; 4. Research Centre for Magnetic and Spintronic Materials, National Institute for Materials Science (NIMS), Tsukuba, Japan; 5. Department of Physics, Government College (Autonomous), Rajahmundry, India*
View Digest Text

VP4-17. **Magnetic Properties of Fe-doped MnO Nanoparticles.** *A. Soares de Brito*[1], M. Valerio-Cuadros[1], A. Alves Oliveira[1], L. Felipe Silva Tupan[1], R. Barco[1], F. Ivashita[1], J. de Araújo[2], M. Morales Torres[2] and A. Paesano Jr[2,1] *1. Universidade Estadual de Maringá, Assis Chateaubriand, Brazil; 2. Universidade Federal do Rio Grande do Norte, Natal, Brazil*
View Digest Text

VP4-18. **Relating structural sensitivities and helical magnetic order of MnSi.** *S. Samatham*[1], A.K. Patel[2], S. Kumar A[1], A. K. Sinha[3], M. Singh[3], S. Shravan Kumar Reddy[1], N. Gandla[1] and K. G. Suresh[4] *1. Department of Physics, Chaitanya Bharathi Institute of Technology, Hyderabad, India; 2. Research Centre for Magnetic and Spintronic Materials, National Institute for Materials Science, Tsukuba, Japan; 3. Synchrotrons Utilization Section, Raja Ramanna Center for Advanced Technology, Indore, India; 4. Department of Physics, Magnetic Materials Laboratory, Indian Institute of Technology Bombay, Mumbai, India*
View Digest Text

VP4-19. **Magnetic Hysteresis Models for 3D Printed Composite Materials.** M. Ralchev[1], V. Mateev[1] and *I. Marinova*[1] *1. Department of Electrical Apparatus, Technical University of Sofia, Sofia, Bulgaria*
View Digest Text

VP4-20. **Effect of oxygen vacancies on the structural and magnetic properties of Fe-doped ITO studied by first-principles DFT calculations.** *C.A. Vilca Huayhua*[1] *1. Institulo de Física, Universidade de Brasília, Brasília, Brazil*
View Digest Text

DIGITAL CONFERENCE RESOURCE CENTER

Session VP5
LINEAR MACHINES AND MAGNETIC GEARING (Poster Virtual Session)

Noureddine Takorabet, Chair
Université de Lorraine, Vandoeuvre-lès-Nancy, France

VP5-01. **Cycloidal Magnetic Gear Utilizing Magnetic Repulsion Characteristics.** *P. Liao*[1], H. Lu[2], M. Tsai[1], P. Huang[2] and T. Chang[2] *1. Department of Mechanical Engineering, National Cheng Kung University, Tainan, Taiwan; 2. Department of Electrical Engineering, National Cheng Kung University, Tainan, Taiwan*
View Digest Text

VP5-02. **A Novel Continuously Variable Magnetic Geared Dual Stator Hub-Motor for an E-Bike.** *S.K. Warsi*[1] and S. Sampathirao[1] *1. School of Electrical Sciences, Indian Institute of Technology Goa, Ponda, India*
View Digest Text

VP5-03. **An Energy-saving Series Elastic Actuator with Variable Torque-speed Characteristics Using Reconfigurable Epicyclic-Driven Actuation.** *T. Wang*[1,2], Z. Dong[1,2], H. Wen[1,2], B. Zhang[1,2] and C. Liu[1,2] *1. Shenzhen Research Institute, City University of Hong Kong, Shenzhen, China; 2. School of Energy and Environment, City University of Hong Kong, Hong Kong*
View Digest Text

VP5-04. **Suppressing the Three-Phase Flux Linkage Asymmetry of Modular Flux-Switching Permanent-Magnet Linear Machine by Rearranging Windings.** *Z. Ke*[1], H. Lin[1] and J. Xu[2] *1. School of Electrical Engineering, Southeast University, Nanjing, China; 2. Naval University of Engineering, Wuhan, China*
View Digest Text

VP5-05. **Optimization Design of Tubular Permanent Magnet Synchronous Linear Motors Considering Machining and Assembly Errors.** *Q. Wu*[1], G. Yang[1] and W. Li[1] *1. Nanjing University of Science and Technology, Nanjing, China*
View Digest Text

VP5-06. **A Tubular Flux-Reversal Transverse Flux Permanent Magnet Linear Generator Used in Direct Drive Wave Energy Converter.** *M. Chen*[1,2], L. Huang[2], Y. Li[2], G. Meng[1] and T. Xia[1] *1. Nanjing Institute of Technology, Nanjing, China; 2. Southeast University, Nanjing, China*
View Digest Text

VP5-07. **Vibration Analysis of Permanent Magnet Linear Synchronous Motor Considering Force-Magnetic Coupling.** *B. Ji*[1], B. Zhang[1], T. Dong[1], R. Fu[1] and W. Feng[1] *1. Shenyang University of Technology, Shenyang, China*
View Digest Text

VP5-08. **Effect of Magnetostriction on the Vibrations of Permanent Magnet Linear Synchronous Motors.** *R. Fu*[1], B. Zhang[1], T. Dong[1], W. Feng[1] and B. Ji[1] *1. Shenyang University of Technology, Shenyang, China*
View Digest Text

VP5-09. **Sensorless Magnetization Current Control for Stable Connection and Separation of Electropermanent Magnet.** *M. Kato*[1] and F. Kitayama[1] *1. Ibaraki University, Hitachi-shi, Japan*
View Digest Text

VP5-10. **Design and Quantitative Analysis of Asymmetric Flux Reversal Permanent Magnet Linear Machine with Reduced Leakage Flux.** Z. Chen[1], Z. Li[3] and *Y. Shen*[2] *1. College of Electrical Engineering, Zhejiang University, Hangzhou, China; 2. School of Electrical and Electronic Engineering, Nanyang Technological University, Singapore; 3. KTH Royal Institute of Technology, Stockholm, Sweden*
View Digest Text

DIGITAL CONFERENCE RESOURCE CENTER

Session VP6
MAGNETIZATION DYNAMICS AND MICROMAGNETICS II (Poster Virtual Session)

Myoung-Woo Yoo, Chair
University of Illinois Urbana-Champaign, Champaign, IL, United States

VP6-02. **Anisotropy Dependent Spin-Orbit-Torque Switching in Crystalline Ferromagnetic Semiconductor.** *A.K. Jana*[1] and S. Lee[1] *1. Department of Physics, Korea University, Seoul, The Republic of Korea*
View Digest Text

VP6-04. **Development of a TR-MOKE Setup for the Investigation of Ultrafast Magnetization Dynamics in Magnetic Thin Films.** *C. Dolai*[1], D. Ghosh[1], S.S. Bodra[1], B. Nayak[2], P. Sahoo[2] and P. Datta[2] *1. Department of Physics, Indian Institute of Technology Kharagpur, Kharagpur, India; 2. Materials Science Centre, Indian Institute of Technology, West Bengal, India*
View Digest Text

VP6-05. **Study on the effect of structural scale of hollow particles and core-shell particles on the properties of magnetorheological fluids.** *W. Shun*[1,2], W. Han[1,2] and B. He[1,2] *1. Institute of Launch Dynamics, Nanjing University of Science and Technology, Nanjing, China; 2. National Key Laboratory of Complex Multibody Systems Dynamics, Nanjing University of Science and Technology, Nanjing, China*
View Digest Text

VP6-06. **Skyrmion generation from domain wall dynamics.** *S. Jeong*[3], D. Jung[3], H. Han[1], G. Kim[3], M. Im[4] and K. Lee[3,2] *1. Department of Materials Science and Engineering, Korea National University of Transportation, Chungju, The Republic of Korea; 2. Graduate School of Semiconductor Materials and Devices Engineering, Ulsan National Institute of Science and Technology (UNIST), Ulsan, The Republic of Korea; 3. Department of Materials Science and Engineering, Ulsan National Institute of Science and Technology (UNIST), Ulsan, The Republic of Korea; 4. Lawrence Berkeley National Laboratory, Berkeley, CA, United States*
View Digest Text

VP6-07. **Static and Dynamic Magnetic Properties in Layered Synthetic Antiferromagnets.** *Y. Rong*[1,2], L. Sun[1,2], F. Liu[1,2], T. Wu[1,2] and Y. Yang[1,2] *1. School of Information Science and Technology, ShanghaiTech University, Shanghai, China; 2. Shanghai Engineering Research Center of Energy Efficient and Custom AI IC, ShanghaiTech University, Shanghai, China*
View Digest Text

VP6-08. **Investigation of the dynamic magnetic properties in RuO_2/Co-Fe-B stack film.** *T. Nguyen*[1,2], Y. Saito[2], H. Naganuma[2,3,4], S. Ikeda[2,1] and T. Endoh[2,1,5] *1. Tohoku University, CSIS, Sendai, Japan; 2. Tohoku University, CIES, Sendai, Japan; 3. Nagoya University, NAIAS, Nagoya, Japan; 4. Nagoya University, IMaSS, Nagoya, Japan; 5. Tohoku University, ECEI, Sendai, Japan*
View Digest Text

VP6-09. **Study of Curvature Effects in Corrugated Nanostrips.** *J. Fernandez-Roldan*[1], S. Shakeel[1], M. Quintana[1,2], O.M. Volkov[1], O. Pylypovskyi[1], E. Oliveros-Mata[1], F. Kronast[3], M. Mohamad-Assaad[3], C. Abert[4], D. Suess[4], D. Erb[1] and D. Makarov[1] *1. Helmholtz-Zentrum Dresden-Rossendorf e.V., Dresden, Germany; 2. CIC nanoGUNE BRTA, Donostia—San Sebastián, Spain; 3. Helmholtz-Zentrum Berlin für Materialien und Energie, Berlin, Germany; 4. University of Vienna, Vienna, Austria*
View Digest Text

VP6-10. **Variations in Spin Seebeck Voltage in Polycrystalline Bulk $Y_3Fe_5O_{12}$ Due to Diverse Annealing Processes.** *H. Ok*[1] and K. Lee[1] *1. Ulsan National Institute of Science and Technology (UNIST), Ulsan, The Republic of Korea*
View Digest Text

VP6-11. **Micromagnetic aspects of the magneto-impedance response of the FM-I-NM-I-FM multilayer film driven by a high-frequency current.** *G.D. Demin*[1], A.D. Fedina[1] and N.A. Djuzhev[1] *1. R&D Center "MEMSEC", National Research University of Electronic Technology (MIET), Moscow, Russian Federation*
View Digest Text

Session VP7
MAGNETORESISTANCE AND RELATED PHENOMENA II (Poster Virtual Session)

Jakub Zelezny, Chair
FZU - Institute of Physics, Czech Academy of Sciences, Prague, Czechia

VP7-01. **High-Resolution Flaw Detection Using Eddy-Current Probe Array Based on Giant Magnetoresistance Sensors.** *L. Bui*[1], J. Jeng[1], H. Huang[1], H. Nguyen[2], V. Doan[3] and T. Nguyen[1] *1. National Kaohsiung University of Science and Technology, Kaohsiung, Taiwan; 2. Thai Nguyen University of Technology, Thai Nguyen, Vietnam; 3. University of Technology and Education, The University of Danang, Da Nang, Vietnam*
View Digest Text

VP7-02. **Enhanced Electrical Modelling of Spin Transfer Torque Magnetic Tunnel Junctions with Temperature Dependent Magnetic Parameters.** *A.C. Venu*[1] and N. Kumar[1] *1. Department of Electronics and Communications Engineering, National Institute of Technology Calicut, Calicut, India*
View Digest Text

VP7-03. **Effect of Deposition Parameters on the Performances of Magnetic Tunnel Junction Multilayer Structure.** *C. Ghemes*[1], O.G. Dragos-Pinzaru[1], M. Tibu[1], G. Stoian[1], G. Ababei[1], N. Lupu[1] and H. Chiriac[1] *1. National Institute of Research and Development for Technical Physics, Iasi, Romania*
View Digest Text

VP7-04. **Investigation of Partially Oxidized Cu Capping Effect on CoFeB/Pt/CuO_x Multilayers by Electrical and Optical Methods.** *Y. Ma*[1,2], N. Zhang[1,3], H. Xie[1], L. Ke[3] and Y. Wu[1,2] *1. Department of Electrical and Computer Engineering, National University of Singapore, Singapore; 2. National University of Singapore (Chong Qing) Research Institute, Chongqing, China; 3. Institute of Materials Research and Engineering, Agency for Science, Technology and Research, Singapore*
View Digest Text

VP7-05. **Efficient spin-orbit torque magnetization switching with low current density in crystalline ferromagnetic semiconductor.** *K. Lee*[1], S. Lee[1], X. Liu[2], M. Dobrowolska[2] and J. Furdyna[2] *1. Department of Physics, Korea University, Seoul, The Republic of Korea; 2. Department of Physics, Unversity of Notre Dame, Notre Dame, IN, United States*
View Digest Text

VP7-06. **Robust Field-Free Current-Induced Magnetization Switching via Oscillatory Interlayer Dzyaloshinskii–Moriya Interaction.** *C. Lin*[1], P. Wang[1], Y. Huang[1], W. Liao[1], M. Song[2], X. Bao[2] and C. Pai[1] *1. Department of Materials Science and Engineering, National Taiwan University, Taipei, Taiwan; 2. Corporate Research, Taiwan Semiconductor Manufacturing Company, Hsinchu, Taiwan*
View Digest Text

VP7-09. **Ferromagnetism of Cobalt Intercalated Molybdenum Ditelluride.** *W. Kim*[1,2], Y. Shin[3] and W. Yu[3] *1. Department of Semiconductor and Display Engineering, Sungkyunkwan University, Suwon, The Republic of Korea; 2. Semiconductor R&D Center, Samsung Electronics, Hwaseong, The Republic of Korea; 3. Department of Electrical and Computer Engineering, Sungkyunkwan University, Suwon, The Republic of Korea*
View Digest Text

VP7-10. **Nanoribbon of Zigzag Silicene for Spin Field Effect Transistor with Low Voltage Bias.** *A. Shah*[1] and A. Kashyap[2] *1. SCEE, IIT Mandi, Mandi, India; 2. SPS, IIT Mandi, Mandi, India*
View Digest Text

VP7-11. **Improvement of SP Decoding Considering the Influence of Recording Patterns by Neural Network in SMR.** *M. Nishikawa*[1], Y. Nakamura[1], Y. Kanai[2] and Y. Okamoto[1] *1. Ehime University, Matsuyama, Japan; 2. Niigata Institute of Technology, Kashiwazaki, Japan*
View Digest Text

VP7-12. **A Study of Iterative Signal Processing Schemes for Double-Layered Bit-Patterned Recording.** *A. Khametong*[1] and C. Warisarn[1] *1. College of Advanced Manufacturing Innovation, King Mongkut's Institute of Technology Ladkrabang (KMITL), Bangkok, Thailand*
View Digest Text

VP7-13. **Magnetic random-access memory based physical unclonable functions.** *J. Lee*[1], J. Kwon[1], S. Noh[1], H. Lee[1], Y. Kim[1], J. Kang[2], D. Han[2], S. Lee[2], B. Park[2] and C. Park[3] *1. Hyundai Motor Company, Hwaseong-si, The Republic of Korea; 2. Korea Advanced Institute of Science and Technology (KAIST), Daejeon-si, The Republic of Korea; 3. Applied Materials, Inc., Santa Clara, CA, United States*
View Digest Text

VP7-14. **MTJ Based NV-SRAM Macro with Enhanced Read Margin and Low Static Power in FDSOI process.** *J. Su*[1] and H. Cai[1] *1. Southeast University, Nanjing, China*
View Digest Text

VP7-15. **Electrical Manipulation of Noncollinear Antiferromagnetic State via Orbital Hall Effect.** *H. Xie*[1], N. Zhang[1,2], Y. Ma[1,3], X. Chen[1], L. Ke[2] and Y. Wu[1,3] *1. Department of Electrical and Computer Engineering, National University of Singapore, Singapore; 2. Institute of Materials Research and Engineering, Agency for Science, Technology and Research, Singapore; 3. National University of Singapore (Chong Qing) Research Institute, Chongqing, China*
View Digest Text

VP7-16. **Thickness Dependence of Unidirectional Magnetoresistance in Co_2MnGa Films.** *B. Rong*[1,6], L. Ren[2], H. Zheng[1,6], L. Liu[3,4,5] and Y. Yang[1,6] *1. School of Information Science and Technology, ShanghaiTech University, Shanghai, China; 2. Department of Electrical and Computer Engineering, National University of Singapore, Singapore; 3. Key Laboratory of Artificial Structures and Quantum Control (Ministry of Education), TD Lee institute, School of Physics and Astronomy, Shanghai Jiao Tong University, Shanghai, China; 4. Hefei National Laboratory, Hefei, China; 5. Shanghai Research Center for Quantum Sciences, Shanghai, China; 6. Shanghai Engineering Research Center of Energy Efficient and Custom AI IC, ShanghaiTech University, Shanghai, China*
View Digest Text

VP7-17. **Characterization of transition metal alloys-based trilayers for magnetic field sensors.** *A. Lo Giudice*[1,2], A. Román[1,2] and L. Steren[1,2] *1. Instituto de Nanociencia y Nanotecnologia CNEA/CONICET - Constituyentes, General San Martín, Argentina; 2. Consejo Nacional de Investigaciones Cientificas y Tecnicas, Buenos Aires, Argentina*
View Digest Text

VP7-18. **Withdrawn**

VP7-19. **A Random Number Generator Based on a Spin-orbit Torque Device with Magnetic Entropy.** *M. Yang*[1], H. Chang[1] and C. Yang[1] *1. Department of Materials Science and Engineering, National Yang Ming Chiao Tung University, Hsinchu, Taiwan*
View Digest Text

VP7-20. **Enhancement of Voltage-Controlled Magnetic Anisotropy in Orthogonally-Magnetized CoFeB/MgO/CoFeB.** *P. Huang*[1], A. Chen[2], X. Cai[1], D. Wu[3], X. Zhang[2] and X. Kou[1] *1. ShanghaiTech University, Shanghai, China; 2. King Abdullah University of Science and Technology (KAUST), Thuwal, Saudi Arabia; 3. Suzhou Inston Technology Co. Ltd., Suzhou, China*
View Digest Text

DIGITAL CONFERENCE RESOURCE CENTER

Session VP8
MOTOR DRIVES, BEARING, TESTING AND CONTROL (Poster Virtual Session)

Zhu Ke, Chair
China Three Gorges University, Hubei, China

VP8-01. **A Novel Hierarchical Controller for Enhanced Responsiveness in Robotic Electric Actuators.** *G. Zhao*[1], R. Huang[1] and C. Liu[1] *1. School of Energy and Environment, City University of Hong Kong, Hong Kong, China*
View Digest Text

VP8-02. **Measurement of magnetization curves of soft magnetic materials in the highly saturated state by the pulsed magnetic field method.** *X. Zhao*[1,2], Y. Jiang[1,2], D. Wang[1,2] and J. Chen[1,2] *1. Naval University of Engineering, Wuhan, China; 2. National Key Laboratory of Electromagnetic Energy, Wuhan, China*
View Digest Text

VP8-04. **Flux Waveforms Control Using Fuzzy Neural Network PID for Magnetic Measurement Under Arbitrary Magnetization.** L. Chen[1], *X. Liu*[1], T. Ben[1], D. Yan[1] and X. Zhang[2] *1. China Three Gorges University, Yichang, China; 2. Hebei University of Technology, Tianjin, China*
View Digest Text

VP8-06. **Design and Analysis of Levitation Region of Fixed-bias Modular Bearingless Motor for Ultra Clean Application.** *S. Noh*[1], H. Muhammad[2], J. Park[1], D. Lee[2] and H. Cho[2,1] *1. Department of Convergence System Engineering, Chungnam National University, Daejeon, The Republic of Korea; 2. Department of Electrical, Electronics, and Communication Engineering Education, Chungnam National University, Daejeon, The Republic of Korea*
View Digest Text

VP8-07. **Differential Model based Parameter Estimation of IPMSMs from Multi-state Measurements.** *H. Cheng*[1], U. Deshpande[2] and N. Kar[1] *1. University of Windsor, Windsor, ON, Canada; 2. D&V Electronics Ltd, Toronto, ON, Canada*
View Digest Text

VP8-08. **Effect of Tube Thicknesses on Electromagnetic Drag and Guidance Forces for Hyperloop with HTS Magnets.** *S. Choi*[1], Y. Oh[1], C. Lee[1] and J. Choe[1] *1. Korea Railroad Research Institute, Uiwang, The Republic of Korea*
View Digest Text

DIGITAL CONFERENCE RESOURCE CENTER

Session VP9
MULTI-FUNCTIONAL MAGNETIC MATERIALS AND APPLICATIONS II (Poster Virtual Session)

Alberto Mendonça, Co-Chair
Universidade Estadual de Campinas, Campinas, Brazil
Jia-Yan Law, Co-Chair
University of Seville, Seville, Spain

VP9-01. **On the saturation of the magnetocaloric effect in $Ni_{37}Co_{13}Mn_{34.5}Ti_{15.5}$ all-d Heusler alloys.** *B. Beckmann*[1], A. Taubel[1], T. Gottschall[2], L. Pfeuffer[1], D. Koch[1], F. Scheibel[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 (HZDR), Dresden, Germany*
View Digest Text

VP9-02. **Magnetocaloric effect of uniformly packed ferromagnetic Gd nanoparticle clusters.** *A.S. Freitas*[2], C.M. Souza[3], A.L. Dantas[1,2] and A.S. Carriço[3] *1. Department of Science and Technology, State University of Rio Grande do Norte, Natal, Brazil; 2. Department of Physics, State University of Rio Grande do Norte, Mossoro, Brazil; 3. Department of Physics, Federal University of Rio Grande do Norte, Natal, Brazil*
View Digest Text

VP9-03. **Electronic Structure and Magnetic Properties of the Full Heusler Alloys Mn_2YAl (Y = Fe, Co, Ni).** *E.D. Chernov*[1] and A.V. Lukoyanov[1,2] *1. M.N. Miheev Institute of Metal Physics UB of RAS, Ekaterinburg, Russian Federation; 2. Ural Federal University named after the first President of Russia, B. N. Yeltsin, Ekaterinburg, Russian Federation*
View Digest Text

VP9-04. **Magnetically Actuated Compliant Soft Robotic Gripper for Grasping Delicate Food Items.** *Y. Choi*[1], C. Hartzell[1] and N. Wereley[1] *1. University of Maryland at College Park, College Park, MD, United States*
View Digest Text

VP9-05. **Theoretical Study of the AFM-FM Transition in $GdNiSi_{1-x}Al_x$.** *R.D. Mukhachev*[1] and A. Lukoyanov[1,2] *1. Metal Optics Laboratory, M.N. Mikheev Institute of Metal Physics of Ural Branch of Russian Academy of Sciences, Yekaterinburg, Russian Federation; 2. Institute of Physics and Technology, Ural Federal University, Yekaterinburg, Russian Federation*
View Digest Text

VP9-06. **Voltage-Controlled Anisotropic Magnetoresistance in Ferromagnetic-Piezoelectric Heterostructures.** *Y. Wang*[1,2,3], M. Du[1,2,3], J. Li[1,2,3], D. Luo[1] and T. Wu[1,2,3] *1. Shanghaitech University, Shanghai, China; 2. Shanghai Institute of Microsystem and Information Technology, Shanghai, China; 3. University of Chinese Academy of Sciences, Beijing, China*
View Digest Text

VP9-07. **Measurement and Analysis of Magnetostriction of Electrical Steel Sheet Considering Grain Structure.** T. Chen[1,2], Q. Yang[1,2], *C. Zhang*[1,2], Y. Li[1,2], Y. Dou[1,2] and X. Liu[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*
View Digest Text

VP9-08. **Influence of trace rare earth elements Pr and annealing process on texture evolution and magnetostriction behavior of $Fe_{81}Al_{19}$ alloys.** *W. Li*[1,2,3] *1. School of Materials Science and Engineering, Shenyang University of Technology, Shenyang, China; 2. Shenyang Key Laboratory of Advanced Structural Materials and Applications, Shenyang University of Technology, Shenyang, China; 3. State Key Laboratory of Baiyunobo Rare Earth Resource Researches and Comprehensive Utilization, Baotou Research Institute of Rare Earths, Baotou, China*
View Digest Text

VP9-09. **Impact of Ho-doping on the magnetic and electrical properties of $Y_{3-x}Ho_xFe_5O_{12}$ (x=0, 0.1, 0.5, 0.7) ceramics.** *O. Morán*[1] *1. Department of Physics, National University of Colombia, Medellin, Colombia*
View Digest Text

DIGITAL CONFERENCE RESOURCE CENTER

Session VP10
NUMERICAL, SEMI-ANALYTICAL AND ANALYTICAL ANALYSIS METHODS III (Poster Virtual Session)

Abdelmounaim Tounzi, Co-Chair
Univ. Lille, Arts et Metiers Institute of Technology, Villeneuve d'Ascq, France
Smail Mezani, Co-Chair
Université de Lorraine, Vandoeuvre lès Nancy, France

VP10-01. **An Accurate Multi-objective Optimization Strategy for Surface-Mounted Permanent-Magnet Machines Based on Nonlinear Finite-Permeability Subdomain Model.** *C. Sun*[1], Y. Fang[1] and P. Pfister[1] *1. Zhejiang University, Hangzhou, China*
View Digest Text

VP10-02. **Modeling of hysteresis motors based on equivalent circuit.** *Y. Du*[1], L. Yuan[1] and F. Xiao[1] *1. Jiangsu University, Zhenjiang, China*
View Digest Text

VP10-03. **Analytical Optimization and Comparison of Internal and External Rotor Permanent Magnet Motors by Coupled Electromagnetic-Thermal Model for Robotics Application.** *A. Liu*[1], X. Huang[1] and Z. Chen[1] *1. Zhejiang University, Hangzhou, China*
View Digest Text

VP10-04. **Analytical Calculation Model for Inductance of Brushless DC Motor under Bearing Fault.** *G. Chen*[1], B. Zhang[1], T. Dong[1], S. Ma[2] and H. Huang[3] *1. School of Electrical Engineering, Shenyang University of Technology, Shenyang, China; 2. School of Information Technology, Shenyang Institute of Engineering, Shenyang, China; 3. State Grid Corporation of China, Anshan, China*
View Digest Text

VP10-05. **Parameter Estimation Method for Dual Stator Permanent Magnet Synchronous Motor based on Incremental Inductance.** *C. Song*[1], J. Lee[1] and M. Lim[1] *1. Hanyang University, Seoul, The Republic of Korea*
View Digest Text

VP10-06. **Real-Time Current Monitoring for the Diagnosis of Faults in Fixed Geometry Thrust Bearing: A Rigorous Quantitative Approach.** *B. Guan*[1], S. Wang[1], Q. Zhu[2] and X. Bao[1] *1. School of Electrical Engineering and Automation, Hefei University of Technology, Hefei, China; 2. Hefei Hengda Jianghai Pump Industry Co., Ltd., Hefei, China*
View Digest Text

VP10-07. **The Harmonic-Balanced Finite Element Method With Laplace Transform for Transient State Nonlinear Problems.** *S. Gao*[1,2], X. Zhao[1], Y. Gao[2], K. Muramatsu[3] and T. Todaka[2] *1. North China Electric Power University, Baoding, China; 2. Oita University, Oita, Japan; 3. Saga University, Saga, Japan*
View Digest Text

VP10-08. **Comparison of Wideband Loss Separation Technology Considering the Impact of Skin Effect.** L. Chen[1], *Z. Zhang*[1], T. Ben[1], X. Wen[1] and C. Liu[2] *1. China Three Gorges University, Yichang, China; 2. Hebei University of Technology, Tianjin, China*
View Digest Text

VP10-09. **Air-gap Region Topology Optimization of a Hairpin PM Motor for Electromagnetic Vibration Reduction.** J. Wu[1] and *X. Zhu*[1] *1. School of Electrical and Information Engineering, Jiangsu University, Zhenjiang, China*
View Digest Text

VP10-10. **Loss Analysis in Spoke Dual-Stator Permanent Magnet Vernier Machine Considering Stator Mutual Effect.** *W. Mi*[1,2], J. Yu[1], F. Zhao[1], Z. Cai[1] and H. Zhao[2] *1. Harbin Institute of Technology, Shenzhen, China; 2. The Hong Kong Universitiy of Science and Technology, Guangzhou, China*
View Digest Text

VP10-11. **Design Study on Consequent Pole Motor for Mitigation of Shaft Voltage Considering Shaft Leakage Flux.** *H. Yoon*[1], S. Jun[4], J. Lee[2], Y. Kim[3], S. Jung[1] and S. Jung[1] *1. Department of Electrical and Computer Engineering, Sungkyunkwan University, Suwon, The Republic of Korea; 2. Department of Electrical Engineering, Chonnam National University, Gwangju, The Republic of Korea; 3. Department of Electrical Engineering, Chosun University, Gwangju, The Republic of Korea; 4. Hyundai Motor Company, eP System Engineering Design Team, Hwaseong, The Republic of Korea*
View Digest Text

VP10-12. **A Simple PM Eddy Current Loss Model for Axial Flux Permanent Magnet Machine.** *Y. Liu*[2,1], C. Wang[2,1], D. Chen[3] and G. Li[3] *1. School of Electrical Engineering, Anhui Polytechnic University, Wuhu, China; 2. Key Laboratory of Electric Drive and Control of Anhui Province, Wuhu, China; 3. Hangzhou Zonhow Electric Technologies Co., Ltd., Hangzhou, China*
View Digest Text

VP10-13. **Analysis of Axial Flux Generator Losses and Thermal Management Based on Mixed Flow Fan.** *Y. Li*[1], L. Huang[1], M. Chen[1] and M. Hu[1] *1. Southeast University, Nanjing, China*
View Digest Text

VP10-14. **Variable Cross-Section End-transposed Rectangular Windings Based on Additive Manufacturing Technology for AC Loss Suppression in Electrical Machines.** J. Zhang[1], *X. Gui*[1], Q. Deng[1], J. He[1], Z. Zhu[1] and Z. Zhang[1] *1. Nanjing University of Aeronautics and Astronautics, Nanjing, China*
View Digest Text

VP10-15. **Multi-Objective Optimization Design of a Five-Phase Flux-Intensifying Fault-Tolerant Permanent Magnet Motor Based on Influence of Inverse-Salient Characteristic.** *X. Li*[1], L. Zhang[1], S. Deng[1], C. Zhang[1] and Y. Wang[2] *1. Jiangsu University, Zhengjiang, China; 2. State Grid Zhenjiang Power Supply Company, Zhenjiang, China*
View Digest Text

VP10-16. **Design and Analysis of a Partitioned-Stator Hybrid Excited Permanent Magnet Arc Motor.** *Z. Pan*[1], J. Zhao[1], S. Fang[2], Z. Yu[1] and P. Xu[3] *1. School of Electrical Engineering and Automation, Hefei University of Technology, Hefei, China; 2. School of Electrical Engineering, Southeast University, Nanjing, China; 3. Department of Motor Technology, Whirlpool (China) Co., Ltd, Hefei, China*
View Digest Text

VP10-17. **Design and Analysis of a Novel Asymmetric PM-Assisted Synchronous Reluctance Machine Used for Electric Vehicles.** W. Wang[1], *S. Wang*[1], L. Zhu[1], X. Zhao[1] and J. Wei[1] *1. College of Computer and Control Engineering, Northeast Forestry University, Harbin, China*
View Digest Text

VP10-18. **Harmonic-Oriented Design and Analysis of a Dual-Air-Gap Flux-Modulated Permanent Magnet Motor for Torque Improvement.** *X. Cai*[1], X. Zhu[1] and D. Fan[1] *1. School of Electrical and Information Engineering, Jiangsu University, Zhenjiang, China*
View Digest Text

VP10-19. **Multi-Material Topology Optimization of Permanent Magnet Synchronous Motor Considering Manufacturing Constraints.** *M. Xia*[1], J. Li[1] and S. Yang[2] *1. Hangzhou City University, Hangzhou, China; 2. Zhejiang University, Hangzhou, China*
View Digest Text

VP10-20. **Comparative Analysis of a Novel Flux-Switching Arc Permanent Magnet Machine With Flux-Reversal Effect.** X. Lin[1] and *S. Fang*[1] *1. School of Electrical Engineering, Southeast University, Nanjing, China*
View Digest Text

VP10-21. **An Improved Machine Design Method Considering Armature Reaction and Comparison with Conventional Method.** *X. Liang*[1], M. Wang[1], P. Zheng[1], Y. Liu[1] and J. Gao[1] *1. Harbin Institute of Technology, Harbin, China*
View Digest Text

VP10-22. **Two-Reaction Theory Analysis of Homopolar Inductor Machine With Rotor Tooth Offset at any Angle.** *Q. Li*[1], J. Yang[1], Y. Pan[1] and S. Huang[1] *1. Hunan University, College of Electrical and Information Engineering, Changsha, China*
View Digest Text

VP10-23. **Multi-Operated Points Optimization of Interior Permanent Magnet Synchronous Machine Considering Driving Cycle.** Q. Zhou[1], *Y. Li*[1], S. Ding[1], J. Hang[1] and W. Li[1] *1. School of Electrical Engineering and Automation, Anhui University, Hefei, China*
View Digest Text

VP10-24. **Torque Ripple Reduction of New Dual-Stator Machines Using Squirrel Stator Teeth in Uneven Distribution.** *R. Yao*[1], H. Wang[1], Y. Xu[1], Y. Sha[1] and C. Feng[1]
1. Nanjing Normal University, Nanjing, China
View Digest Text

VP10-25. **Effect of deep-sea high-pressure environments on iron loss in motors.** Y. Xu[1], *J. Huang*[1], L. Xiao[1], G. Yu[1] and J. Zou[1]
1. Harbin Institute of Technology, Harbin, China
View Digest Text

VP10-26. **Withdrawn**

VP10-27. **Structural Design and Thermal Management Efficiency Study of a High-Stability Doubly-Excited Synchronous Generator.** D. Li[1], *Y. Cao*[1] and W. Liu[2] *1. Northeast Forestry University, Harbin, China; 2. Tsinghua University, Beijing, China*
View Digest Text

VP10-28. **MMF Harmonic Analysis of Multi-M-Phase Fractional-Slot Permanent-Magnet Machines With Partial Operating Winding Sets.** *W. Wang*[1] and L. Wu[1] *1. Zhejiang University, Hangzhou, China*
View Digest Text

VP10-29. **The Scalable Analytical Model for Predicting the Performance of SPM Machine with Arbitrary Magnet Shape.** *Z. Li*[1,2], B. Liu[2], P. Fransson[2] and L. Peretti[1]
1. KTH Royal Institute of Technology, Stockholm, Sweden; 2. ABB Corporate Research, Vasteras, Sweden
View Digest Text

VP10-30. **Determination Method of Nonlinear Reluctance Matrix Considering Saturation Differences for Three-phase Transformers.** Y. Wang[1], *Z. Liang*[1] and B. Jin[1]
1. School of Mechanical and Electrical Engineering, China University of Mining and Technology, Beijing, Beijing, China
View Digest Text

VP10-31. **Flux-driven Nonlinear Transient Model for Single Phase Transformers.** Y. Wang[1], *J. Yu*[1], B. Jin[1] and Z. Liang[1]
1. School of Mechanical and Electrical Engineering, China University of Mining and Technology, Beijing, Beijing, China
View Digest Text

VP10-32. **An Improved Analytical Model for the Novel Counter-Rotating Axial-Flux Hybrid-Excitation Permanent Magnet Machine.** K. Huang[1], Y. Feng[1], C. Xia[1], B. Long[1], *Y. Gao*[1] and S. Huang[1] *1. Hunan University, Changsha, China*
View Digest Text

Session VP11
PERMANENT MAGNET MACHINES II
(Poster Virtual Session)

Konstantin Boynov, Chair
Eindhoven University of Technology, Eindhoven, Netherlands

VP11-01. **Comparative Analysis of Dual-Stator Permanent Magnet Machines With Inner Stator Teeth Designed in Hypotenuse for Electric Vehicle.** Y. Xu[1], H. Wang[1], *Y. Sha*[1] and R. Yao[1] *1. School of Electrical and Automation Engineering, Nanjing Normal University, Nanjing, China*
View Digest Text

VP11-02. **Research on Air-gap Field Modulation Effect of Torque Enhanced Hybrid Permanent Magnet Motor.** Y. Chen[1], *X. Zhou*[1], M. Lu[1] and Z. Li[1] *1. Yangzhou University, Yangzhou, China*
View Digest Text

VP11-03. **Influence of Stator Core Manufacturing Displacement on the Electromagnetic Performance of Modular Permanent Magnet Machine.** *H. Liu*[1], J. Yang[1], J. Yu[1] and S. Huang[1] *1. College of Electrical and Information Engineering, Hunan University, Changsha, China, Changsha, China*
View Digest Text

VP11-04. **Electromagnetic Field Analysis and of Axial Flux Permanent Magnet Motor Considering Slotting Effect Based on Three-Dimensional Analytical Approach.** *M. Koo*[1], H. Shin[2] and H. Lee[3] *1. Automotive Materials & Components R&D Group, Korea Institute of Industrial Technology, Gwangju, The Republic of Korea; 2. Smart Agricultural Machinery R&D Group, Korea Institute of Industrial Technology, Gimje, The Republic of Korea; 3. H&A Fundamental Technology R&D Lab, LG Electronics, Seoul, The Republic of Korea*
View Digest Text

VP11-05. **Partial Demagnetization Fault Diagnosis Method for Permanent Magnet Synchronous Machines Considering Topology Structures.** S. Ding[1], Z. Wu[1], *Y. Li*[1], J. Hang[1] and W. Li[1] *1. School of Electrical Engineering and Automation, Anhui University, Hefei, China*
View Digest Text

VP11-06. **Design of a Novel Transverse Flux Machine with Axial-Radial Permanent Magnet.** *B. Zhang*[1,2], R. Huang[1,2], Y. Liu[1,2] and C. Liu[1,2] *1. Shenzhen Research Institute, City University of Hong Kong, Shen Zhen, China; 2. School of Energy and Environment, City University of Hong Kong, Kowloon Tong, Hong Kong*
View Digest Text

VP11-07. **Design and Analysis of a New Consequent-Pole Hybrid Excited Permanent Magnet Machine with DC-biased Current.** G. Qu[1], J. Yu[1], *Y. Liu*[1] and W. Liu[1] *1. College of Nuclear Technology and Automation Engineering, Chengdu University of Technology, Chengdu, China*
View Digest Text

VP11-08. **Fast Prediction of No-Load Back EMF in IPMSMs Based on Small-Sample Surrogate Model.** W. Jiang[1], S. Liu[1] and *L. Bai*[1] *1. Nanjing University of Aeronautics and Astronautics, Nanjing, China*
View Digest Text

VP11-09. **Design of a New Consequent-Pole Hybrid Excited Machine with Segmented Stator.** G. Qu[1], *Y. Liu*[1], J. Yu[1] and W. Liu[1] *1. College of Nuclear Technology and Automation Engineering, Chengdu University of Technology, Chengdu, China*
View Digest Text

VP11-10. **Performance Analysis of Single-Phase Inverter-Fed Permanent Magnet Synchronous Motor with Ladder-Connected Winding.** *M. Kato*[1] and K. Ito[1] *1. Ibaraki University, Hitachi-shi, Japan*
View Digest Text

VP11-11. **Design of Radial Flux C-Gen Machine with Interior Permanent Magnets.** *H. Guo*[1], R. Huang[1], B. Zhang[1] and C. Liu[1] *1. School of Energy and Enviroment, City University of Hong Kong, Hong Kong*
View Digest Text

VP11-12. **High-Efficiency-Region Broadening Design and Analysis of a Variable-Leakage-Flux Permanent Magnet Motor from the Perspective of Losses Replacement.** M. Jiang[1] and *X. Zhu*[1] *1. School of Electrical and Information Engineering, Jiangsu University, Zhenjiang, China*
View Digest Text

DIGITAL CONFERENCE RESOURCE CENTER

Session VP12
PERMANENT MAGNET MACHINES III
(Poster Virtual Session)

Yukihiro Yoshida, Co-Chair
Akita University, Akita, Japan
Sho Sakurai, Co-Chair
Akita University, Akita, Japan

VP12-01. **AC Loss Analysis and Suppression of a Flat-Wire Permanent Magnet Motor Based on Slot-Leakage-Flux Variation Improvement.** X. Wang[1], *L. Quan*[1] and Z. Xiang[1] *1. Department of Electrical Engineering, School of Electrical and Information Engineering, Jiangsu University, Zhenjiang, China*
View Digest Text

VP12-02. **Low Vibration Research and Design of In-Wheel V-shaped PM Motor from the Perspective of Winding Magnetomotive Force.** T. Liu[1], *L. Quan*[1] and X. Zhu[1] *1. Department of Electrical Engineering, School of Electrical and Information Engineering, Jiangsu University, Zhenjiang, China*
View Digest Text

VP12-03. **Low Loss design method based on response surface algorithm considering multi-operation states.** L. Yin[2], Y. Wang[2], R. Sun[2], L. Wu[2] and *X. Xu*[1] *1. Nanjing University of Posts and Telecommunications, Nan Jiang, China; 2. Lianyungang Power Supply Company, Lianyungang, China*
View Digest Text

VP12-04. **Virtual Shorted Coil Model for Six-Phase PMSM Inter-Turn Short Fault Detection.** *Z. Yuan*[1], M. Wang[2,1], W. Liu[1], M. Wang[1] and P. Zheng[1] *1. Harbin Institute of Technology, Harbin, China; 2. State Key Laboratory of Robotics and Systems (HIT), Harbin, China*
View Digest Text

VP12-05. **Withdrawn**

VP12-06. **Analysis of the Overload Capability of Shaftless Propulsion Motor for Autonomous Underwater Vehicle with Wide Speed Range.** *X. Jiang*[1,2,3], Y. Jiang[2,3], H. Wang[2,3], S. He[2,3] and J. Chen[2,3] *1. School of Electrical Engineering, Southeast University, Nanjing, China; 2. Naval University of Engineering, Wuhan, China; 3. National Key Laboratory of Electromagnetic Energy, Wuhan, China*
View Digest Text

VP12-07. **Analysis of Output Characteristics According to IPMSM Lightweight Design by Pole/Slot Combination.** *J. Choi*[1,2], K. Lee[1], J. Lee[1], J. Park[3] and J. Lee[2] *1. Intelligent Mechatronics Research Center, Korea Electronics Technology Institude, Gyeonggi-do, The Republic of Korea; 2. Department of Electrical Engineering, Hanyang University, Seoul, The Republic of Korea; 3. Power Control System Research Center, Korea Electronics Technology Institude, Gyeonggi-do, The Republic of Korea*
View Digest Text

VP12-08. **Characterization of Permanent Magnet Demagnetization in Surface-mounted Synchronous Motors Based on the Stator Current Vector Modulus.** *W. Li*[1,3], X. Lu[1], Y. Li[1], L. Zeng[2] and R. Pei[1,2] *1. Department of Electrical Engineering, Shenyang University of Technology, Shenyang, China; 2. Suzhou Inn-mag New Energy Ltd., Suzhou, China; 3. School of Electrical and Mechanical Engineering, XuChang University, XuChang, China*
View Digest Text

VP12-09. **Deep Transfer Learning-Based Performance Prediction Method of Outer Rotor IPMSM Considering Axial Leakage Flux and Overhang Effect according to Design Variables.** *M. Sung*[1], K. Cha[2], S. Park[3], Y. Jung[4], J. Sim[5], S. Kwon[2] and M. Lim[1] *1. Hanyang University, Seongdong-gu, The Republic of Korea; 2. Advanced Mobility Group, Korea Institute of Industrial Technology, Daegu, The Republic of Korea; 3. Dongguk University, Seoul, The Republic of Korea; 4. Yeungnam University, Gyeongsan, The Republic of Korea; 5. LG Electronics, Seoul, The Republic of Korea*
View Digest Text

VP12-10. **Two-Stage Optimal Design of Concentric Ferrite PM layer IPMSM for Micro-EV Traction Considering Driving Characteristics.** *K. Kim*[1], D. Park[1], S. Im[1], Y. Choi[2] and M. Lim[1] *1. Automotive Engineering, Hanyang University, Seoul, The Republic of Korea; 2. Drivetech, Bucheon, The Republic of Korea*
View Digest Text

VP12-11. **Research on Power Factor Improvement of a Variable-Leakage-Flux PM Motor based on Regulated-Flux-Barrier Topology.** W. Zhu[1], *X. Zhu*[1] and Z. Xiang[1] *1. School of Electrical and Information Engineering, Jiangsu University, Zhenjiang, China*
View Digest Text

VP12-12. **Design of a Novel Simplified Modular Flux Switching Permanent Magnet Resolver.** *W. Mi*[1,2], J. Yu[1], F. Zhao[1], Z. Cai[1] and H. Zhao[2] *1. Harbin Institute of Technology, Shenzhen, China; 2. The Hong Kong University of Science and Technology, Guangzhou, China*
View Digest Text

VP12-13. **A Novel Speed Estimation Algorithm for a Permanent Magnet Linear Synchronous Motor Using Extended Kalman Filter with Multiple Fading Factors.** X. Liu[1], *J. Zhang*[1], H. Xie[1] and C. Hu[2] *1. College of Electrical and Information Engineering, Hunan University, Changsha, China; 2. State Grid Ningbo Power Supply Company, Ningbo, China*
View Digest Text

VP12-14. **A Novel Counter-rotating Axial-flux Permanent Magnet Memory Machine with Dual-rotor.** *C. Xia*[1], Y. Feng[1], Y. Gao[1] and S. Huang[1] *1. Hunan University, Changsha, China*
View Digest Text

VP12-15. **A Novel Axial-field Juxtaposed Magnetic Circuit Variable Flux Memory Machine.** *Y. Gao*[1], Y. Feng[1], C. Xia[1], B. Long[1] and S. Huang[1] *1. College of Electrical and Information Engineering, Hunan University, Changsha, China*
View Digest Text

VP12-16. **Position Estimation Method of a Permanent Magnet Synchronous Motor Based on Moving Horizon Estimation EKF algorithm.** G. Cao[1], *H. Zhou*[1], S. Huang[1], H. Hu[1] and J. He[2] *1. Guangdong Key Laboratory of Electromagnetic Control and Intelligent Robots, Shenzhen University, Shenzhen, China; 2. Department of Electrical and Computer Engineering, University of Kentucky, Lexington, KY, United States*
View Digest Text

VP12-17. **Design Optimization of Spoke-type Flux-intensifying PM Motor with Asymmetric Rotor Configuration for Improved Performance.** M. Hsieh[1], *A.T. Huynh*[2,1], V. Do[1], D. Gerada[2] and C. Gerada[2] *1. Department of Electrical Engineering, National Cheng Kung University, Tainan, Taiwan; 2. Power Electronics and Machines Centre, Faculty of Engineering, University of Nottingham, Nottingham, United Kingdom*
View Digest Text

VP12-18. **Comparative Study on Litz Wire and Hairpin Windings of 1MW Class Permanent Magnet Machines for Aircraft Propulsion Applications.** *A.T. Huynh*[1], J. Jiang[1], H. Huang[1], D. Gerada[1] and C. Gerada[1] *1. Power Electronics and Machines Centre, Faculty of Engineering, University of Nottingham, Nottingham, United Kingdom*
View Digest Text

VP12-19. **Investigation of High Torque Density Yokeless-Rotor PMSM with Large Diameter to Axial Length Ratio for Aircraft Propulsion.** *Q. Lin*[1], Z. Zhang[1], H. Xue[1] and H. Gao[1] *1. Nanjing University of Aeronautics and Astronautics, Nanjing, China*
View Digest Text

VP12-20. **Analysis of Dual-Airgap Yokeless-Stator Permanent Magnet Motor With Non-Oriented or Grain-Oriented Steels for Aircraft Propulsion.** *H. Xue*[1], Z. Zhang[1], Y. Liu[2], H. Gao[1] and Q. Lin[1] *1. College of Automation Engineering, Nanjing University of Aeronautics and Astronautics, Nanjing, China; 2. Nanjing Normal University, Nanjing, China*
View Digest Text

VP12-21. **A Control Strategy Minimizing PM Loss of Phase-Shifted Dual-Winding PMSM for Aviation Electric Propulsion Application.** Y. Zhu[1], Z. Zhang[1], J. Lu[1] and *H. Xue*[1] *1. Nanjing University of Aeronautics and Astronautics, Nanjing, China*
View Digest Text

DIGITAL CONFERENCE RESOURCE CENTER

Session VP13
SENSORS AND HIGH-FREQUENCY DEVICES II (Poster Virtual Session)

Yajie Chen, Chair
Rogers Corp., Burlington, MA, United States

VP13-01. **Localization of a crack in moving cylindrical ferromagnetic rods by measuring the Fourier coefficients of the leakage magnetic flux.** *K. Shiku*[1], M. Kuromizu[2], Y. Gotoh[2] and T. Nara[1] *1. The University of Tokyo, Bunkyo-ku, Japan; 2. Oita University, Oita, Japan*
View Digest Text

VP13-02. **CO_2 Detector Powered by a Rectenna.** Ú.C. Resende[1], *F. Fernandes dos Santos Ramalho*[1], T.H. Mello[1] and I.O. Souza[1] *1. Electrical Engineering, Centro Federal de Educação Tecnológica de Minas Gerais, Belo Horizonte, Brazil*
View Digest Text

VP13-03. **The effect of CoFeB Electrodes Compositions on Bias Voltage Dependence of Sensitivity in Tunneling Magnetoresistance Sensors.** *P. Wisniowski*[1], L. Fusnik[1], S. Cardoso de Freitas[2], P. Freitas[2] and J. Wrona[3]
1. Department of Electronics, AGH University of Krakow, Krakow, Poland; 2. INESC Microsystems and Nanotechnologies and IN, Lisbon, Portugal; 3. Singulus Technologies AG, Kahl am Main, Germany
View Digest Text

VP13-04. **Bright Envelope Solitons in a Double Negative Medium Based on Nonlinear Ferromagnetic Metamaterial Layer.** *M. Amelchenko*[1], S.V. Grishin[1] and F. Ogrin[2,3]
1. Institute of Physics, Saratov State University, Saratov, Russian Federation; 2. School of Physics and Astronomy, University of Exeter, Exeter, United Kingdom; 3. MaxLLG Ltd., Exeter, United Kingdom
View Digest Text

VP13-05. **Analysis of Inductive Angular Position Sensor Considering the Effect of Air Gap.** D. Xu[1], *Y. Zhao*[1], S. Fang[1], F. Zeng[2] and S. Hwang[3] *1. School of Mechatronic Engineering and Automation, Shanghai University, Shanghai, China; 2. Shanghai Zenidrive Technology Co., Shanghai, China; 3. Engineering School of Mechanical System Desgin, Pusan National University, Busan, The Republic of Korea*
View Digest Text

VP13-06. **Study and Development of a Sensor for Touchless Capacitive Computer Interface.** *G. Bacon Carvalho*[1] and G.A. Pizo[1] *1. Faculdade do Gama, Universidade de Brasília, Guará I, Brazil*
View Digest Text

VP13-07. **Defect Evaluation in Mild Steel Plate Using Harmonic Ratio Induced by Square Wave Excitation Field and Nonlinear Magnetization.** *M. Saari*[1,2], M. Zaini[1], M. Sulaiman[1], A. Samsudin[3] and T. Kiwa[4] *1. Faculty of Electrical & Electronics Engineering Technology, Universiti Malaysia Pahang Al-Sultan Abdullah, Pekan, Malaysia; 2. Centre for Advanced Industrial Technology, Universiti Malaysia Pahang Al-Sultan Abdullah, Pekan, Malaysia; 3. Faculty of Industrial Sciences and Technology, Universiti Malaysia Pahang Al-Sultan Abdullah, Kuantan, Malaysia; 4. Graduate School of Interdisciplinary Science and Engineering in Health System, Okayama University, Okayama, Japan*
View Digest Text

VP13-08. **Investigation of the Efficiency of Large Area and Low Aspect Ratio GMR Sensors in Biomedical Diagnostics: A Simulation Study.** *R.A. Mendonsa*[1], S. Liang[2], D. Tonini[1] and J. Wang[1,2] *1. Department of Electrical Engineering, University of Minnesota, Edina, MN, United States; 2. Department of Chemical Engineering and Materials Science, University of Minnesota, Minneapolis, MN, United States*
View Digest Text

VP13-09. **THz Sensor Design with Graphene Infused Metamaterial for Material Analysis.** A. Eroglu[1] and *T. Islam*[2]
1. ECE, University of Massachusetts Boston, Boston, MA, United States; 2. ECE, North Carolina A&T State U, Greensboro, NC, United States
View Digest Text

VP13-10. **Angle-Dependent In-Plane Magnetic Field Detection by MEMS Resonant Sensor.** *Y. Wang*[1,2,3], M. Du[1,2,3], J. Li[1,2,3], D. Luo[1] and T. Wu[1,2,3] *1. Shanghaitech University, Shanghai, China; 2. Shanghai Institute of Microsystem and Information Technology, Shanghai, China; 3. University of Chinese Academy of Sciences, Beijing, China*
View Digest Text

VP13-11. **Design of Magnetic Material Constituted Pyramidal Absorber for 5G Applications Using Chaos Game Optimization.** *R.P. Bhadoriya*[1], V. Bajaj[1] and R. Panwar[2]
1. Department of Electronics & Communication Engineering, PDPM IIITDM Jabalpur, Jabalpur, India; 2. High-Frequency Structures and Materials Laboratory, School of Material Science and Technology, Indian Institute of Technology (BHU), Varanasi, India
View Digest Text

VP13-12. **Wireless Power Transmission Using an Intelligent Metamaterial Array and Resonant Coils.** *I.O. Souza*[1], Ú.C. Resende[1] and M.D. Almeida[1] *1. Centro Federal de Educação Tecnológica de Minas Gerais (CEFET-MG), Belo Horizonte, Brazil*
View Digest Text

VP13-13. **Study on Using Magnetodielectric Ferrite for Impedance Matching to Improve the Transmission-Range of Implantable Antenna.** Y. Li[1] and *Q. Feng*[1]
1. Southwest Jiaotong University, Chengdu, China
View Digest Text

DIGITAL CONFERENCE RESOURCE CENTER

Session VP14
SOFT MAGNETIC MATERIALS
(Poster Virtual Session)

Samuel Dobák, Chair
P. J. Šafárik University, Kosice, Slovakia

VP14-01. **Improved 2-D Magnetic Properties Measurement of Silicon Steel Based on a Novel B-H Sensor.** *J. Zhou*[2,1], Y. Li[2,1], S. Yue[2,1] and Z. Li[2,1] *1. Province-Ministry Joint Key Laboratory of EFEAR, Hebei University of Technology, Tianjin, China; 2. State Key Laboratory of Reliability and Intelligence of Electrical Equipment, Hebei University of Technology, Tianjin, China*
View Digest Text

VP14-02. **Estimation of core loss in Fe-Ni powder cores.** *M. Nguyen*[5], S. Yoshida[1], S. Okamoto[1,2,3], T. Miyazaki[4] and Y. Endo[5,2] *1. Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Sendai, Japan; 2. Center for Science and Innovation in Spintronics, Tohoku University, Sendai, Japan; 3. National Institute for Material Science (NIMS), Tsukuba, Japan; 4. Faculty of Engineering, Tohoku University, Sendai, Japan; 5. Department of Electrical Engineering, Tohoku University, Sendai, Japan*
View Digest Text

VP14-03. **Evolution of crystallographic texture and its impact on magnetic losses of non-oriented electrical steel.** *M.B. Alvim*[1,2], L.C. Matos[1], M.P. Arruda[2] and D.L. Rocco[1] *1. Programa de Pós-Graduação em Engenharia de Materiais, Centro Federal de Educação Tecnológica de Minas Gerais (CEFET-MG), Timóteo, Brazil; 2. Usiminas Research and Development Center, Usiminas, Ipatinga, Brazil*
View Digest Text

VP14-04. **Effect of binder content on structure and magnetic properties of Fe-Si powder cores.** *M. Nguyen*[1], S. Yoshida[2], S. Okamoto[2,3,4], T. Miyazaki[5] and Y. Endo[1,3] *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. Center for Science and Innovation in Spintronics, Tohoku University, Sendai, Japan; 4. National Institute for Materials Science (NIMS), Tsukuba, Japan; 5. Faculty of Engineering, Tohoku University, Sendai, Japan*
View Digest Text

VP14-05. **Coercive force as an indicator of structural changes in the heat treatment of amorphous and nanocrystalline alloys on the example of fast-quenched Fe-Cu-Nb-Si-B tapes.** *I. Sapovskii*[1], N. Ilyin[1], G. Krainova[1], T. Rakhmatullaev[1] and V. Plotnikov[1] *1. General and Experimental Physics, Far Eastern Federal University, Vladivostok, Russian Federation*
View Digest Text

VP14-06. **Additive Manufacturing for High-Inductance Power Inductor.** *T. Chang*[1], P. Huang[1], C. Shih[1], A. Hung[1], C. Wang[2], H. Ko[2] and M. Tsai[3,1] *1. Electric Motor Technology Research Center, National Cheng Kung University, Tainan, Taiwan; 2. Chung Yo Materials Co., Ltd., Kaohsiung, Taiwan; 3. Department of Mechanical Engineering, National Cheng Kung University, Tainan, Taiwan*
View Digest Text

VP14-07. **Investigation of Structural, Magnetic and Complex Impedance studies of High Entropy Garnet Ceramics.** *S. Verma*[1] and S. Ravi[1] *1. Deaprtment of Physics, Indian Institute of Technology, Guwahati, Guwahati, India*
View Digest Text

VP14-08. **Comprehensive Investigation on Iteration Algorithms for Solving Nonlinear Magnetic Field Problems.** J. Yin[1], *Y. Li*[1] and S. Yue[1] *1. Hebei University of Technology, Tianjin, China*
View Digest Text

VP14-09. **Study of High-Speed Motor Rotors Based on the Local Carburization Strengthening Mechanism of Non-Grain Oriented Silicon Steel.** *Y. Li*[1], C. Sun[3], A. Wang[1], Y. Li[3] and R. Pei[1,2] *1. Electrical Engineering, Shenyang University of Technology, Shenyang, China; 2. Suzhou Inn-mag New Energy Ltd., Suzhou, China; 3. Ansteel Iron & Steel Research Institute, Ansteel, Anshan, Liaoning Province, China*
View Digest Text

VP14-10. **Analysis of Magneto-Mechanical Properties at the Tooth-Yoke Embedding Position in Grain-Oriented Electrical Steel Electric Motors.** *Z. Li*[1], Y. Li[1], Y. Qin[1], L. Zeng[2], J. Li[1] and R. Pei[1,2] *1. Department of Electric Engineering, Shenyang University of Technology, Shenyang, China; 2. Suzhou Inn-mag New Energy Ltd., Suzhou, China*
View Digest Text

VP14-11. **Effect of Cutting Process on the Magnetic Properties of Electrical Steels with Different Si Contents.** *D. Ma*[1], B. Tian[1], L. Zeng[2] and R. Pei[1,2] *1. Department of Electrical Engineering, Shenyang University of Technology, Shenyang, China; 2. Suzhou Inn-Mag New Energy Ltd., Suzhou, China*
View Digest Text

VP14-12. **Research on Magnetic-thermal Coupling of High Permeability Soft Magnets in SynRM.** *J. Li*[1], J. Ge[1], Y. Li[1], Z. Li[1], L. Zeng[2] and R. Pei[1,2] *1. Department of Electrical Engineering, Shenyang University of Technology, Shenyang, China; 2. Suzhou Inn-Mag New Energy Ltd., Suzhou, China*
View Digest Text

VP14-13. **Effect of Si Content on Magnetostrictive properties of Electrical Steel Sheet Considering Tensile Stress.** *D. Ma*[1], B. Tian[1], L. Zeng[2] and R. Pei[1,2] *1. Department of Electrical Engineering, Shenyang University of Technology, Shenyang, China; 2. Suzhou Inn-Mag New Energy Ltd., Suzhou, China*
View Digest Text

VP14-14. **Magnetic Measurement and Analysis of Nanocrystalline Laminates with Different Dimensions by An Improved Tester.** *W. Meng*[1], C. Zhang[1], Y. Li[1], H. Sun[1] and Z. Wan[1] *1. Hebei University of Technology, Tianjin, China*
View Digest Text

VP14-15. **Characteristic Analysis and Motor Application of Continuous Casting Slab with High Saturation Magnetic Flux Density.** *Y. Li*[1], C. Yan[1], S. Xie[2], L. Zeng[3] and R. Pei[1,3] *1. Department of Electrical Engineering, Shenyang University of Technology, Shenyang, China; 2. Shagang Iron & Steel Ltd, Suzhou, China; 3. Suzhou Inn-Mag New Energy Ltd., Suzhou, China*
View Digest Text

VP14-16. **Iron Core Loss Calculate Method for Soft Magnetic Materials by Physics-Informed Neural Networks.** *Z. Li*[1], Y. Qin[1], Y. Li[1], R. Pei[1,2], J. Li[1], J. Li[1] and L. Zeng[2] *1. Department of Electric Engineering, Shenyang University of Technology, Shenyang, China; 2. Suzhou Inn-Mag New Energy Ltd., Suzhou, China*
View Digest Text

VP14-17. **Dependence of the cut region on the magnetic losses of a non-grain-oriented Fe-Si steel.** *J.C. Ferreira*[1], L.C. Matos[1], T. Pereira de Abreu[1], E.M. Alves[2], G.A. Mendonça[2], L. Muniz Meireles[1], A.S. Neto[1], D.L. Rocco[1] and L.F. Costa[1]
1. CEFETMG, Timóteo, Brazil; 2. Aperam, Timóteo, Brazil
View Digest Text

VP14-18. **Augmented Exchange Bias and Interfacial Pinning in FeCo alloy Nanoparticles.** *V. Rajeevan*[1], L.S. Billgates[1] and R. Joseyphus[1] *1. Department of Physics, National Institute of Technology, Tiruchirappalli, India*
View Digest Text

DIGITAL CONFERENCE RESOURCE CENTER

Session VP15
TRANSFORMERS AND WIRELESS POWER TRANSFER
(Poster Virtual Session)

Sandro Rubino, Chair
Politecnico di Torino, Torino, Italy

VP15-01. **Research on Low-frequency Electromagnetic Transient Model of Shell-Type Transformers Based on Dynamic Jiles-Atherton Hysteresis Model.** *Y. Ren*[1] and Y. Wang[1]
1. Hebei University of Technology, Tianjin, China
View Digest Text

VP15-02. **A Novel Diagonal-Laminated Fe-based Nanocrystalline Ribbon Magnetic Core Structure in Wireless Power Transfer Systems.** *D. Wang*[1], J. Zhang[1], S. Cui[1], Z. Bie[2] and C. Zhu[1] *1. School of Electrical Engineering and Automation, Harbin Institute of Technology, Harbin, China; 2. Harbin Institute of Technology Zhengzhou Research Institute, Zhengzhou, China*
View Digest Text

VP15-03. **Magnetic Interoperability of DD Coils for Inductive Power Transfer.** *H. Wang*[1] and K. Cheng[1] *1. Electrical and Electronic Engineering, The Hong Kong Polytechnic University, Kowloon, Hong Kong*
View Digest Text

VP15-04. **A Multi-Output Wireless Power Transfer System with Non-Overlapping Self-Decoupling Magnetic Couplers.** *W. Pan*[1], R. Xie[1], Y. Zhuang[1], X. Mao[1] and Y. Zhang[1]
1. Fuzhou University, Fuzhou, China
View Digest Text

VP15-05. **Using Solenoid Coils to Enhance the Anti-offset Capability of the Bipolar Coil in Wireless Power Transfer Systems.** *R. Xie*[1], W. Pan[1], X. Chen[1], X. Mao[1] and Y. Zhang[1]
1. Fuzhou University, Fuzhou, China
View Digest Text

VP15-06. **A Family of Hybrid Topologies for Efficient Constant-Current and Constant-Voltage Output of Magnetically Coupled Wireless Power Transfer Systems.** Y. Zheng[1], *R. Xie*[1], X. Chen[1], X. Mao[1] and Y. Zhang[1] *1. Fuzhou University, Fuzhou, China*
View Digest Text

VP15-07. **A Novel Characterization Method for Transformer Interturn Short-Circuit Faults Based on Arc-Induced Transients.** *H. Liu*[1], C. Yan[1], H. Yang[1], X. Yang[1], P. Zhang[1] and B. Zhang[1] *1. Xi'an Jiaotong University, Xi'an, China*
View Digest Text

VP15-08. **Wireless Power Transfer with Approximately Uniform Mutual Inductance in Misaligned Systems with Small Receiver Coil.** *M.D. Almeida*[1], Ú.C. Resende[1] and I.O. Souza[1] *1. Department of Electrical Engineering, Federal Center for Tecnological Education of Minas Gerais, Contagem, Brazil*
View Digest Text

VP15-09. **Fundamental study on cancellation coil system design for application to infrastructure.** *M. Yokosawa*[1], F. Sato[1], S. Miyahara[1], H. Matsuki[4], K. Inada[2], T. Abe[2] and S. Sasaki[3] *1. Graduate School of Engineering, Tohoku-Gakuin University, Tagajo, Japan; 2. NITTOKU, Fukushima, Japan; 3. Hikaridenshi, Osaki, Japan; 4. Tohoku University, Sendai, Japan*
View Digest Text

VP15-10. **The Vibration Calculation Method For Gapped Cores Based On The Electric-magnetic-mechanical Coupling Model.** *H. Li*[1], X. Zhao[1], J. Zhang[1], Y. Yu[1], L. Liu[2] and Z. Du[2] *1. Department of Electrical Engineering, North China Electric Power University, Baoding, China; 2. Hebei Provincial Key Laboratory of Electromagnetic and Structural Performance of Power Transmission and Transformation Equipment, Baoding, China*
View Digest Text

VP15-11. **Investigation of Vibration and Noise of High-frequency Transformer Cores of Different Shapes Under Non-Sinusoidal Excitation.** *Y. Li*[1,2], X. Liu[1,2], Y. Dou[1,2] and T. Chen[1,2] *1. State Key Laboratory of Reliability and Intelligence of Electrical Equipment, Hebei University of Technology, Tianjin, China; 2. Province-Ministry Joint Key Laboratory of EFEAR, Hebei University of Technology, Tianjin, China*
View Digest Text

VP15-12. **Characteristics of Normal Magnetic Flux in Composite materials Transformer Core.** *B. Jiang*[1], B. Zhang[1], T. Dong[1], S. Ma[2] and M. Zhang[3] *1. School of Electrical Engineering, Shenyang University of Technology, Shenyang, China; 2. School of Information Technology, Shenyang Institute of Engineering, Shenyang, China; 3. State Grid Corporation of China, Songyuan, China*
View Digest Text

VP15-13. **Characteristics of Losses in Composite Material Transformer Cores.** *T. Chen*[1], B. Zhang[1], T. Dong[1], S. Ma[2] and M. Zhang[3] *1. School of Electrical Engineering, Shenyang University of Technology, Shenyang, China; 2. School of Information Technology, Shenyang Institute of Engineering, Shenyang, China; 3. State Grid Corporation of China, Songyuan, China*
View Digest Text

VP15-14. **A Study on the Transmission Side Coil Configuration Focusing on the Characteristics of Continuous Repeater Coils in a Continuous Repeater Coil in a Running Wireless Power Transfer System for EVs.** *A. Saito*[1], S. Miyahara[1], F. Sato[1] and H. Matsuki[2] *1. Graduate School of Engineering, Tohoku Gakuin University, Sendai, Japan; 2. New Industry Creation Hatchery Center (NICHe), Tohoku University, Sendai, Japan*
View Digest Text

VP15-15. **An Electromagnetic Wave Energy Harvester with Ultra-Low Frequency and Multi-Directional Response Using Constrained Dual Pendulum System and Cantilever Structur.** J. Qiu[1], *Z. Zhang*[1], Y. Li[1], S. Zhang[1], S. Huang[1] and H. Sun[1] *1. College of Optoelectronic Engineering, Chongqing University, Chongqing, China*
View Digest Text

VP15-16. **Substantial Reduction of Solenoidal Ferrite Rod Coil Losses through Winding Geometry Modification.** *M. Wolf*[1,2] and D. Shmilovitz[2] *1. Soreq, Petah-Tikva, Israel; 2. Tel-Aviv University, Tel-Aviv, Israel*
View Digest Text

VP15-17. **Vibration and Noise Characterization of Medium-High Frequency Cores Under Non-Sinusoidal Excitation.** *Y. Dou*[1], Y. Li[1] and J. Zhu[2] *1. Hebei University of Technology, Tianjin, China; 2. The University of Sydney, Sydney, NSW, Australia*
View Digest Text

VP15-18. **Experiment and Analysis of Transformer Under DC Bais Considering Tank.** *M. Zou*[1], Z. Wang[1], M. Yang[1] and D. Yan[1] *1. School of Automation, Chongqing University of Posts and Telecommunications, Chongqing, China*
View Digest Text

VP15-19. **Nonlinear Inductance Matrix Modeling Method for Multi-winding Transformers.** Y. Wang[1], *B. Jin*[1], Z. Liang[1] and J. Yu[1] *1. School of Mechanical and Electrical Engineering, China University of Mining and Technology, Beijing, Beijing, China*
View Digest Text

- A -

A. Miranda, A. (AS-03) 21
A. Miranda, A. (BQ-10) 38
A. Miranda, A. (CS-11) 63
Ababei, G. (CS-01) 62
Ababei, G. (ES-10) 103
Ababei, G. (VP7-03) 141
Aballe, L. (AB-07) 3
Abbas, S. (VP1-12) 132
Abbas, S. (VP3-08) 134
Abbasi, M. (FG-10) 116
Abdelsamie, A. (GD-07) 123
Abdrakhmanov, D. (DQ-09) 79
Abdukayumov, K. (CG-08) 55
Abe, T. (VP15-09) 160
Abellan, M. (AQ-15) 18
Abellan, M. (FD-04) 110
Abert, C. (AB-11) 4
Abert, C. (AE-09) 10
Abert, C. (AF-05) 12
Abert, C. (AG-05) 14
Abert, C. (DB-06) 66
Abert, C. (EB-02) 85
Abert, C. (EG-09) 97
Abert, C. (VP6-09) 140
Abeykoon, A.M. (FG-01) 114
Ablets, Y. (ED-05) 90
Abraham, J. (AB-02) 2
Abrão, J. (CG-10) 56
Abrão, J.E. (AG-08) 14
Abreu Araujo, F. (AE-07) 10
Abreu Araujo, F. (BC-10) 27
Abreu Araujo, F. (CC-09) 47
Abreu Araujo, F. (CF-08) 53
Abreu, K.O. (BR-06) 39
Acosta, H. (GG-06) 129
Acosta, H.S. (AQ-02) 16
Adabifiroozjaei, E. (DR-03) 80
Adabifiroozjaei, E. (ED-05) 90
Adabifiroozjaei, E. (VP4-01) 135
Adelmann, C. (AD-08) 8
Adelmann, C. (BF-03) 32
Adelmann, C. (BF-06) 32
Adeyeye, A.O. (EG-07) 97
Adriano, C. (CP-09) 58
Aguilera-Grande, A. (BR-16) 40
Aguirre, M. (AQ-06) 17
Aguirre, M. (AQ-16) 18
Aguirre, M. (CG-02) 54
Ahn, S. (DF-07) 73
Ahn, S. (GF-11) 128
Aho, A. (CQ-01) 59
Ahrens, C. (ES-06) 103
Aichner, B. (EB-02) 85
Aizu, S. (CE-12) 51
Akdogan, O. (BC-04) 26
Akerman, J. (FB-04) 106
Akilan, K. (AC-06) 5
Al-Mahdawi, M. (CF-04) 52
Albrecht, M. (AF-05) 12
Albrecht, M. (AG-05) 14
Alekhina, Y. (GF-08) 127
Aleman, A. (FB-04) 106
Alff, L. (EE-04) 92
Alfonsov, A. (AB-02) 2
Ali, M. (VP1-12) 132
Ali, Q. (CF-11) 53
Ali, Q. (GE-11) 126
Ali, Q. (VP1-15) 132
Aliev, A. (DR-06) 81
Aliev, A. (FG-02) 115
Alisultanov, Z. (CQ-12) 60
Alisultanov, Z. (FG-02) 115
Allayarov, R. (AE-09) 10
Almeida, M.D. (VP13-12) 156
Almeida, M.D. (VP15-08) 160
Almeida, R. (FG-01) 114
Alonso, M. (GF-05) 127
Altbir, D. (CB-04) 44
Altmann, P. (DR-02) 80
Álvarez-Alonso, P. (FG-01) 114
Alvarez, Y. (BC-08) 27
Alvaro, R. (GG-04) 129
Alves Oliveira, A. (VP4-17) 137
Alves, E.M. (CS-14) 63
Alves, E.M. (CS-15) 63
Alves, E.M. (VP14-17) 159
Alves, J.M. (GF-04) 127
Alves, M.B. (BR-11) 39
Alves, O.T. (CS-14) 63
Alvim, M.B. (VP14-03) 157
Alzhrani, A. (CE-09) 50
Am-Shalom, N. (FB-05) 106
Am-Shalom, N. (FD-03) 109
Amara, Y. (BE-05) 30
Amara, Y. (CE-03) 49
Amaral, J. (FG-01) 114
Amaral, R.P. (BF-05) 32
Amelchenko, M. (VP13-04) 155
Amorim, L. (CG-06) 55
Ampuero Torres, J. (CG-07)* 55
An, S. (BS-11) 41
An, S. (GF-02) 126
An, S. (GF-03) 126
Anacleto, P. (FD-05) 110
Anadón, A. (CG-02) 54
Anadon, A. (CG-07) 55
Anane, A. (BF-06) 32
Anbalagan, A. (CG-03) 54
Anderson, I.E. (EE-06) 93
Anderson, I.E. (EF-07) 96
Ando, K. (EA-04) 84
Andrei, P. (FC-06) 108
Angayarkanni Ramamurthy, D. (AD-09) 8
Ángel García, J. (ED-05) 90
Angel, M. (GD-05) 123
Angelopoulos, S. (DR-08) 81
Anghel, L. (AA-03) 1
Anghel, L. (BP-01) 35
Anil Kumar, P. (ER-03) 101
Antilla, K. (ED-09) 91
Anton, E. (AD-01) 6
Antunes, L.F. (DE-09) 72
Antunes, L.F. (ES-03) 102
Antunes, L.F. (ES-04) 103
Antunes, L.F. (ES-05) 103
Antunes, L.F. (ES-12) 103
Antúnez - Ossio, V. (BR-04) 38
Aoshima, H. (VP4-14) 137
Aprea, S. (AB-09) 4
Arapan, S. (GD-03) 122
Araújo, A. (EB-06) 86
Araújo, J.C. (BF-05) 32
Araújo, J.P. (FG-01) 114
Araujo, P. (GA-02) 117
Araujo, R.M. (AE-03) 9
Arauzo, A. (EC-10) 89
Arbustini, J. (DS-06) 83
Archanjo, B. (DG-03) 75
Ardisson, J. (ES-13) 104
Arimatsu, K. (CE-12) 51
Arita, R. (DG-01) 75
Arita, R. (GD-04) 123
Arora, D. (BF-02) 32
Arpaci, S. (AD-04)^ 7
Arruda, M.P. (VP14-03) 157
Asano, H. (FG-11) 117
Asari, Y. (EF-09) 95
Asari, Y. (EF-10) 95
Asfirane, S. (CE-03) 49
Assaf, B.A. (AS-11) 22
Assouline, B.J. (BD-02)^ 28
Atallah, K. (CE-09) 50

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Atcheson, G. (BD-05) 29
Athas, J.G. (AD-04) 7
Atkinson, D. (CS-04) 62
Atkinson, D. (GB-01) 118
Attané, J. (BP-01) 35
Attané, J. (CD-08) 49
Attané, J. (ER-02) 101
Attané, J. (ER-05) 101
Aubert, A. (DE-02) 71
Aubert, A. (DR-03) 80
Aubert, A. (EE-02) 92
Aubert, A. (ES-01) 102
Aubert, A. (FG-05) 115
Auffret, S. (BG-01) 34
Auffret, S. (ER-02) 101
Auffret, S. (ER-05) 101
Autreto, P. (DQ-04) 79
Avilés Félix, L. (CG-07) 55
Awad, A.A. (FB-04) 106
Aygen, C. (AD-04) 7
Ayub, Z. (VP3-08) 134
Azeredo, Y. (FG-08) 116
Azevedo, A. (AG-08) 14
Azevedo, A. (CP-06) 57
Azevedo, L. (DE-09) 72
Azevedo, L. (ES-04) 103
Azzawi, S. (GB-01) 118

- B -

Babbadi, G. (VP4-16) 137
Bacani, M. (DR-02) 80
Bacchetta, G. (DE-04) 71
Back, C.H. (GB-07) 119
Bacon Carvalho, G. (VP13-06) 155
Badets, F. (BP-08) 36
Badura, A. (GD-08) 124
Bahr, A. (DS-06) 83
Bai, J. (VP3-02) 133
Bai, L. (VP11-08) 151
Bajaj, V. (VP13-11) 156
Bakuzis, A.F. (BA-01) 22
Balan, C. (BG-01) 34
Balcells, L. (CP-10) 58
Baldárrago-Alcántara, A. (ES-03) . . . 102
Bali, R. (GG-05) 129
Balli, M. (FG-10) 116
Baltz, V. (GD-08) 124
Ban, M.S. (AP-14) 16
Bandyopadhyay, S. (AA-05) 2
Banerjee, R. (CS-16) 64
Banerjee, S. (AE-02) 9
Banu, N. (DF-09) 74
Banu, N. (EF-04) 94
Bao, X. (VP7-06) 142
Bao, X. (VP10-06) 146
Baraduc, C. (BG-01) 34
Barbero, I. (AC-02) 4
Barbosa, A.L. (CD-09) 49
Barco, R. (VP4-17) 137
Barker, J. (AE-10) 10
Barman, A. (CR-01) 61
Barman, J. (VP4-08) 136
Barquin, L. (DR-12) 82
Barral, M.A. (BF-09) 33
Barrera, G. (BF-04) 32
Barrera, G. (GF-10) 128
Barriga-Castro, E.D. (BC-08) 27
Barros, T. (AR-01) 19
Bartolomé, E. (EC-10) 89
Bashir, T. (VP3-07) 134
Bastiana, E. (GA-02) 117
Batalla Ferrer-Vidal, I. (AB-07) 3
Batistel, T.M. (AQ-14) 18
Batistela, N.J. (CS-14) 63
Batistela, N.J. (FE-03) 111
Batlle, X. (AB-07) 3
Bauw, G. (BE-10) 31
Bayazit, G. (CE-05) 50
Béa, H. (BG-01) 34
Beato-Lopez, J. (AF-08) 12
Bechara Muniz, R. (DG-09) 76
Beckmann, B. (DR-03) 80
Beckmann, B. (FG-01) 114
Beckmann, B. (VP9-01) 144
Begué, A. (EG-08) 97
Behling da Silveira, G. (DP-03) 77
Behling da Silveira, G. (DP-04) 77
Belahcen, A. (EQ-03) 100
Beleza, A. (FG-01) 114
Belin, S. (ED-01) 89
Belmeguenai, M. (BG-01) 34
Belo, J.H. (FG-01) 114
Ben Tal, Y. (FD-03) 109
Ben, T. (VP8-04) 144
Ben, T. (VP10-08) 147
Benabou, A. (EQ-02) 99
Benally, O. (BA-04) 23
Benedicto, A. (BC-03) 26
Beneke, G. (CC-07)^ 47
Benetti, L. (AA-03) 1
Benetti, L. (BP-08) 36
Benetti, L. (CF-06) 53
Benetti, L. (EB-06) 86
Benetti, L. (FD-05) 110
Bennet, K. (BA-04) 23
Bera, A. (FB-06) 106
Bercoff, P.G. (AB-09) 4
Berger, F. (ED-01) 89
Berges, L. (CA-02) 42
Bergman, A. (AG-02) 13
Bergman, A. (DG-09) 76
Bergman, A. (ER-07) 101
Bernando, P. (FG-04) 115
Bernstein, N. (FB-05) 106
Bernstein, N. (FD-03) 109
Béron, F. (AQ-07) 17
Béron, F. (AQ-14) 18
Béron, F. (BR-14) 39
Béron, F. (DQ-05) 79
Béron, F. (DQ-07) 79
Béron, F. (DQ-11) 80
Béron, F. (GD-10) 124
Bertacco, R. (CB-07) 44
Bertacco, R. (DB-07) 66
Bertran, F. (FF-08) 114
Besong, J. (BE-08) 30
Bezerra, I. (CS-06) 62
Bhadoriya, R.P. (VP13-11) 156
Bharadwaj, V. (GD-02) 122
Bharadwaj, V. (GD-05) 123
Bharadwaj, V. (GD-08) 124
Bhat, I. (ER-03) 101
Bhatt, R.C. (BQ-03) 37
Bhattacharya, A. (EE-10) 93
Bhukta, M. (GD-05) 123
Bhukta, M. (GD-09) 124
Bhuktare, S. (AP-14) 16
Bhuktare, S. (ER-09) 102
Biage, G.C. (EC-02) 87
Biage, G.C. (EC-04) 88
Bian, F. (VP1-02) 130
Bian, M. (GG-03) 129
Bian, M. (VP2-04) 133
Bian, W. (VP3-16) 135
Bibes, M. (CD-08) 49
Bibes, M. (ER-02) 101
Bibes, M. (ER-05) 101
Bibes, M. (FF-08) 114
Bie, Z. (VP15-02) 159
Bigolin Lorenzon, M. (BQ-07) 37
Billgates, L.S. (VP14-18) 159
Billington, D. (BA-06) 23
Bin Farooq, U. (VP1-12) 132

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Bin Farooq, U. (VP3-07) 134
Biondo, A. (AQ-13) 18
Bir, A. (CR-05). 61
Birch, M. (CF-12) 53
Birch, M. (FB-09) 107
Birge, N.O. (GG-11) 130
Bjørk, R. (DR-01) 80
Blamey, J.M. (BR-04) 38
Blanco, J. (DF-08) 74
Blanco, J. (GF-06) 127
Blodgett, J. (EB-01). 85
Blomgren, J. (BA-06) 23
Bloom, R. (BA-04) 23
Bodra, S.S. (ER-10). 102
Bodra, S.S. (VP6-04). 139
Boehnert, T. (EB-09) 87
Bogomolova, A.V. (AS-13) 22
Bohn, F. (BR-01) 38
Bohn, F. (CG-05) 55
Bohn, F. (CQ-03) 59
Bohn, F. (CQ-04) 59
Bohn, F. (EG-06) 97
Bohn, F. (EQ-04) 100
Böhnert, T. (AC-02). 4
Böhnert, T. (CC-04) 46
Böhnert, T. (CF-06) 53
Böhnert, T. (EB-06) 86
Bohorquez, J.A. (BQ-09). 37
Bokor, J. (BD-03). 28
Bolyachkin, A. (AD-09). 8
Bonanni, A. (DG-02) 75
Bonell, F. (CG-08) 55
Bonnard, C. (EQ-14) 100
Bony, B. (AC-05). 5
Bormio-Nunes, C. (AF-09) 12
Borras, V.J. (AD-08) 8
Bortolotti, P. (BF-06) 32
Bortolotti, P. (EG-02). 96
Boruch, I. (EE-08) 93
Bose, A. (EA-05) 84
Bothra, S. (EP-01) 98
Bouamrane, F. (CG-04) 55
Bouard, C. (EA-05) 84
Bouchenoire, L. (CS-04) 62
Boucher, R. (GG-05) 129
Boukari, H. (CG-08) 55
Boulle, O. (BG-01) 34
Bourgault, A.J. (VP3-15). 135
Bouzehouane, K. (GD-07). 123
Boventer, I. (BF-06). 32
Boyano, M. (ED-02) 90
Boynov, K.O. (CE-05). 50
Boynov, K.O. (DC-03). 67
Bradley, H. (CC-03). 46
Braga Silva, I. (AF-09) 12
Brajuskovic, V. (EB-01). 85
Brandao, J. (AG-02). 13
Brandao, J. (AQ-07). 17
Brandao, J. (AQ-14). 18
Brandao, J. (DQ-05). 79
Brandao, J. (DQ-07). 79
Brandao, J. (DQ-11). 80
Brandao, J. (FB-02) 105
Brandao, J. (GD-10). 124
Branford, W.R. (AA-01) 1
Brems, M.A. (CC-07) 47
Breth, L. (CF-11) 53
Brevis, F. (CA-01) 42
Briatico, J. (AQ-16) 18
Brito, D. (FE-05) 112
Brousseau-Couture, V. (CP-09) 58
Bruckner, F. (AE-09) 10
Bruckner, F. (AG-05) 14
Bruckner, F. (EB-02) 85
Bruder, E. (DR-03). 80
Brunnett, F. (CG-04) 55
Brunnett, F. (CP-10). 58
Brunnett, F. (CP-12). 58
Bruns, S. (VP4-01). 135
Brunt, D. (DF-09) 74
Brus, P. (CG-04). 55
Bryan, J. (EP-04) 99
Buchner, B. (AB-02) 2
Buchner, B. (GD-06) 123
Buda-Prejbeanu, L.D. (AA-03) 1
Buda-Prejbeanu, L.D. (BG-01) 34
Budniak, A. (DG-04) 76
Bui, L. (VP7-01) 141
Bukhari, S. (VP1-12) 132
Bukhari, S. (VP3-04) 133
Bukhari, S. (VP3-07) 134
Bukhari, S. (VP3-08) 134
Bulyk, I. (EE-08) 93
Bunyaev, S. (GB-01) 118
Bunyaev, S.A. (AQ-15) 18
Bureš, R. (EF-01). 94
Burghard, M. (FB-09) 107
Burgos Parra, E.O. (CG-08). 55
Burgos Parra, E.O. (CQ-13). 60
Burimova, A. (AS-03) 21
Burimova, A. (BQ-10) 38
Burnell, G. (GG-09). 130
Busch, R. (GF-10) 128
Bussmann, K. (GB-04) 119
Butcher, T.A. (BF-07) 33
Butera, A. (CG-07). 55
Butera, A. (CQ-06). 59
Butera, A. (EG-10). 98
Butzek, M. (CE-07) 50
Buyanova, I.A. (AS-05) 21
Buyanova, I.A. (CQ-01). 59
Byczynski, G. (DP-08). 78
Byczynski, G. (VP3-15). 135

- C -

Cabezón, R. (BQ-06) 37
Cabrera-Pasca, G.A. (BR-03) 38
Cabrera-Pasca, G.A. (CS-11). 63
Cabrera-Pasca, G.A. (DR-13) 82
Cagnon, L. (BG-01) 34
Caha, I. (FD-05). 110
Cai, H. (VP7-14) 142
Cai, K. (AD-02) 7
Cai, W. (BQ-01). 36
Cai, X. (VP7-20) 143
Cai, X. (VP10-18) 148
Cai, Z. (VP10-10) 147
Cai, Z. (VP12-12) 153
Calderón, J.A. (AQ-04) 17
Calderón, J.A. (BP-03). 35
Calderón, J.A. (CQ-05) 59
Calle, F. (FD-08) 110
Camarero, J. (AC-02). 4
Camerini, C. (AS-07). 21
Campos, W. (GD-08) 124
Camsari, K. (DA-01) 64
Canvel, Y. (FD-07). 110
Cao, G. (CE-08). 50
Cao, G. (GE-08). 125
Cao, G. (VP12-16). 153
Cao, K. (AD-05) 7
Cao, K. (BQ-01). 36
Cao, K. (ER-01). 101
Cao, Y. (VP10-27) 149
Cao, Z. (DC-04). 67
Capua, A. (BD-02). 28
Capua, A. (FB-05) 106
Capua, A. (FD-03) 109
Carbonari, A.W. (AS-03) 21
Carbonari, A.W. (BQ-10). 38
Carbonari, A.W. (BR-03) 38
Carbonari, A.W. (BR-07) 39
Carbonari, A.W. (CS-11) 63

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Carbonari, A.W. (DR-13) 82
Carbonio, R. (CS-05) 62
Cardias Alves
de Almeida, R. (DG-09) 76
Cardias Alves
de Almeida, R. (ER-07) 101
Cardoso de Freitas, S. (GA-02) 117
Cardoso de Freitas, S. (VP13-03) . . . 155
Cardoso de Oliveira, R. (BC-05) 26
Cardoso de Oliveira, R. (BC-09) 27
Cardoso, C.E. (BA-01) 22
Cardoso, J.R. (EC-02) 87
Cardoso, J.R. (EC-04) 88
Carlotti, G. (GB-07) 119
Carlstet, N. (FC-06) 108
Caro Patiño, J. (DR-10) 81
Caro Patiño, J. (FG-09) 116
Carpenter, R. (AC-09) 6
Carpenter, R. (AD-02) 7
Carpenter, R. (AD-08) 8
Carpenter, R. (BP-02) 35
Carpenter, R. (FD-07) 110
Carpentieri, M. (AA-06) 2
Carpentieri, M. (AD-04) 7
Carpentieri, M. (AG-01) 13
Carpentieri, M. (CC-06) 46
Carpentieri, M. (EG-11) 98
Carpentieri, M. (GB-05) 119
Carranza-Célis, D. (BQ-09) 37
Carré, E. (CP-12) 58
Carreira, S. (AQ-16) 18
Carriço, A.S. (AP-12) 16
Carriço, A.S. (VP9-02) 145
Caruana, A. (CS-04) 62
Carva, K. (DG-08) 76
Carvalho, R. (CG-06) 55
Carvalho, V. (CB-04) 44
Casiraghi, A. (GB-07) 119
Cassoret, B. (BE-10) 31
Castro Nunes, W. (BR-09) 39
Cattelan, L.P. (FG-07) 116
Cattoni, A. (CB-07) 44
Cattoni, A. (DB-07) 66
Cazor, X. (AB-01) 2
Cebollada, F. (GF-05) 127
Cecchi, B.M. (BF-10) 33
Cela, D. (CF-02) 52
Celano, U. (AD-08) 8
Celegato, F. (BF-04) 32
Cely Orjuela, I.G. (BR-15) 40
Cely Orjuela, I.G. (DP-05) 77
Centala, G. (DB-02) 65
Cepeda-Arancibia, M. (CA-01) 42
Cesar, M.M. (CS-15) 63
Céspedes, E. (AB-09) 4
Cespedes, O. (GG-09) 130
Cestarollo, L. (AF-07) 12
Cestarollo, L. (FE-04) 111
Ceylan, D. (CE-05) 50
Ceylan, D. (DC-03) 67
Cezar, J.C. (AG-02) 13
Cezar, J.C. (AQ-07) 17
Cezar, J.C. (BF-05) 32
Cezar, J.C. (DQ-05) 79
Cezar, J.C. (DQ-07) 79
Cezar, J.C. (FB-02) 105
Cha, K. (VP12-09) 152
Chabour, F. (BE-05) 30
Chabour, F. (CE-03) 49
Chan, J. (CC-01) 45
Chanda, A. (ED-05) 90
Chang, H. (BQ-08) 37
Chang, H. (FC-05) 108
Chang, H. (FF-02) 113
Chang, H. (VP7-19) 143
Chang, J. (AE-08) 10
Chang, J. (EB-05) 86
Chang, J. (FC-05) 108
Chang, S. (AR-12) 20
Chang, S. (AR-13) 20
Chang, S. (AR-14) 20
Chang, S. (BS-01) 40
Chang, S. (DP-01) 77
Chang, T. (VP5-01) 138
Chang, T. (VP14-06) 157
Chang, W. (AD-06) 8
Chang, W. (CC-02) 46
Chang, W. (CG-09) 56
Chao, W. (AP-03) 15
Charalampidis, I. (BP-07) 35
Charlier, J. (CG-04) 55
Charlier, J. (CP-12) 58
Chatterjee, R. (CC-02) 46
Chatterjee, S. (FC-10) 109
Chaudhary, V. (CS-16) 64
Chauleau, J. (GD-07) 123
Chaves Pereira, E. (BC-05) 26
Chaves Pereira, E. (BC-09) 27
Chaves Pereira, E. (DF-11) 74
Chaves, D. (AQ-07) 17
Chdil, O. (FG-10) 116
Checca, N. (GF-04) 127
Checca, R. (CS-06) 62
Checca, R. (GB-03) 118
Cheeran, M.C. (DD-07) 70
Chen, A. (VP7-20) 143
Chen, C. (AR-05) 19
Chen, C. (DG-06) 76
Chen, D. (VP1-15) 132
Chen, D. (VP10-12) 147
Chen, G. (EB-04) 86
Chen, G. (VP10-04) 146
Chen, H. (BA-06) 23
Chen, H. (CC-10) 47
Chen, H. (CD-07) 48
Chen, H. (VP1-11) 131
Chen, J. (AD-03) 7
Chen, J. (AD-11) 8
Chen, J. (AR-12) 20
Chen, J. (DP-01) 77
Chen, J. (EB-04) 86
Chen, J. (EC-03) 88
Chen, J. (FC-04) 108
Chen, J. (VP8-02) 144
Chen, J. (VP12-06) 152
Chen, L. (GB-07) 119
Chen, L. (VP8-04) 144
Chen, L. (VP10-08) 147
Chen, M. (VP5-06) 139
Chen, M. (VP10-13) 147
Chen, T. (CG-11) 56
Chen, T. (VP9-07) 145
Chen, T. (VP15-11) 160
Chen, T. (VP15-13) 161
Chen, W.M. (AS-05) 21
Chen, W.M. (CQ-01) 59
Chen, X. (DG-01) 75
Chen, X. (GD-04) 123
Chen, X. (VP7-15) 142
Chen, X. (VP15-05) 159
Chen, X. (VP15-06) 160
Chen, Y. (AC-10) 6
Chen, Y. (DD-04) 69
Chen, Y. (GB-08) 120
Chen, Y. (VP11-02) 150
Chen, Z. (VP5-10) 139
Chen, Z. (VP10-03) 146
Cheng, C. (AD-06) 8
Cheng, C. (CG-09) 56
Cheng, H. (VP8-07) 144
Cheng, J. (CG-03) 54
Cheng, K. (VP15-03) 159
Cherif, R. (EQ-02) 99
Chérif, S. (BG-01) 34

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Chernov, E.D. (VP9-03) 145
Chevalier, A. (GC-03) 121
Chevallier, L. (EQ-02) 99
Cheynis, F. (CD-08) 49
Chikaki, S. (DD-09) 70
Chiriac, H. (CS-01) 62
Chiriac, H. (DS-10) 83
Chiriac, H. (EP-07) 99
Chiriac, H. (VP7-03) 141
Chirkova, A. (DR-03) 80
Cho, H. (VP8-06) 144
Cho, S. (AR-06) 19
Choe, J. (VP8-08) 144
Choi, C. (ED-09) 91
Choi, D. (BS-03) 41
Choi, G. (EA-03) 84
Choi, J. (ED-03) 90
Choi, J. (VP12-07) 152
Choi, S. (VP8-08) 144
Choi, Y. (EA-03) 84
Choi, Y. (VP4-06) 136
Choi, Y. (VP9-04) 145
Choi, Y. (VP12-10) 153
Chollet, M. (CF-02) 52
Chopin, C. (AE-07) 10
Chopin, C. (CC-09) 47
Chopin, C. (CF-08) 53
Chouhan, A. (CD-05) 48
Chrisekos, J. (DD-05) 69
Chshiev, M. (BG-01) 34
Chshiev, M. (BG-10) 35
Chshiev, M. (CP-05) 57
Chshiev, M. (CP-10) 58
Chuang, K. (CG-03) 54
Chugh, V.K. (DD-07) 70
Chumak, A. (BB-03) 24
Chumak, A. (CB-09) 45
Chumak, A. (DB-06) 66
Chumak, A. (DB-08) 66
Chumak, A. (EG-09) 97
Chumak, A. (FA-02) 104
Ciannella, S. (VP4-13) 137
Ciccarelli, C. (FA-01) 104
Cierpial, M. (BG-05) 34
Ciftja, O. (VP4-11) 137
Ciubotaru, F. (BF-03) 32
Ciubotaru, F. (BF-06) 32
Claessen, R. (GD-06) 123
Claro, M. (FD-05) 110
Cocconcelli, M. (CB-07) 44
Coelho, R.A. (EC-02) 87
Coelho, R.A. (EC-04) 88
Coey, J. (FD-02) 109
Coey, J. (GC-01) 120
Cohen, L.F. (FG-04) 115
Coisson, M. (BF-04) 32
Collin, S. (AC-05) 5
Collin, S. (CD-06) 48
Collin, S. (CP-10) 58
Conde Garrido, J.M. (BE-09) 30
Conde Garrido, J.M. (DF-06) 73
Copie, O. (AP-10) 15
Cornelio Palma, J.G. (DQ-01) 78
Corodeanu, S. (CS-01) 62
Corodeanu, S. (DS-10) 83
Coronel, J.P. (AQ-03) 16
Correa, A.A. (DF-11) 74
Corrêa, B.S. (AS-03) 21
Corrêa, B.S. (BQ-10) 38
Corrêa, B.S. (BR-03) 38
Corrêa, B.S. (CS-11) 63
Correa, E.L. (CS-11) 63
Correa, M. (BR-01) 38
Correa, M.A. (CG-05) 55
Correa, M.A. (CQ-03) 59
Correa, M.A. (CQ-04) 59
Correa, M.A. (EG-06) 97
Correa, M.A. (EQ-04) 100
Correia, M.V. (DQ-02) 78
Corte-Leon, P. (DF-08) 74
Corte-Leon, P. (GF-06) 127
Cortés-Ortuño, D.I. (CA-01) 42
Cortés-Ortuño, D.I. (CF-12) 53
Cosset-Cheneau, M. (BP-01) 35
Cosset-Cheneau, M. (CD-08) 49
Cosset-Cheneau, M. (ER-02) 101
Cosset-Cheneau, M. (ER-05) 101
Costa Carvalho, P. (AG-02) 13
Costa Carvalho, P. (DQ-01) 78
Costa, C.A. (AE-03) 9
Costa, C.A. (CQ-03) 59
Costa, D. (AC-02) 4
Costa, L.F. (AR-01) 19
Costa, L.F. (VP14-17) 159
Costa, M. (DG-09) 76
Costa, M.S. (BR-03) 38
Côté, M. (CP-09) 58
Cotón, N. (EG-08) 97
Couet, S. (AC-09) 6
Couet, S. (AD-02) 7
Couet, S. (AD-08) 8
Couet, S. (BP-02) 35
Couet, S. (FD-07) 110
Croes, B. (CD-08) 49
Cros, V. (AC-05) 5
Cros, V. (CD-06) 48
Cros, V. (EG-02) 96
Cruz, N. (BF-10) 33
Csaba, G. (CB-07) 44
Cubukcu, M. (DG-04) 76
Cui, J. (EE-01) 92
Cui, J. (EE-06) 93
Cui, J. (EF-07) 96
Cui, S. (VP15-02) 159
Culot, M. (BP-01) 35
Culot, M. (CD-08) 49
Culot, M. (ER-02) 101
Cunha, G. (AS-02) 21
Curti, M. (FE-08) 112
Cysne, T. (DG-09) 76

- D -

D. Santos, R. (BR-09) 39
da Câmara Santa Clara Gomes, T. (BC-10) 27
da Costa Paolinelli, S. (CS-09) 63
da Cruz, A.d. (AS-06) 21
da Cunha, R.O. (AQ-08) 17
da Cunha, R.O. (CP-06) 57
da Cunha, R.O. (CQ-11) 60
da Luz, M. (FG-07) 116
da Luz, M.V. (ES-06) 103
da Rosa, D.S. (CQ-09) 60
da Silva Nascimento Sales, T. (AS-03) 21
da Silva Nascimento Sales, T. (BR-07) 39
da Silva Nascimento Sales, T. (CS-11) 63
da Silva, E.F. (EG-06) 97
da Silva, R.B. (BR-01) 38
da Silva, R.B. (CQ-09) 60
da Silva, V.R. (EE-05) 92
Dabrowski, M. (BD-04) 28
Dabrowski, M. (DG-04) 76
Dabrowski, M. (EG-04) 96
Dahmouche, K. (EP-06) 99
Dahnoun, L. (GE-09) 125
Dahotre, N.B. (CS-16) 64
Dalla Costa, L.J. (CS-07) 63
Damas, H. (CG-07) 55
Damatopoulou, T. (DR-08) 81
Daniel, L. (EF-05) 94

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Daniel, L. (EF-08) 95
Dantas, A.L. (AP-12) 16
Dantas, A.L. (VP9-02) 145
Darwin, E. (EC-01) 87
Darwin, E. (GB-05) 119
Das, B. (AE-02) 9
Das, D. (FC-10) 109
Das, K.K. (CC-04) 46
Das, P.T. (EB-10) 87
Das, S. (AC-06) 5
Das, S. (FF-09) 114
Das, T. (AB-02) 2
Datta, P. (ER-10) 102
Datta, P. (VP6-04) 139
Datta, S. (AE-02) 9
Davídková, K. (DB-08) 66
Davidkova, K. (EB-02) 85
Dayal, V. (DR-09) 81
de Abreu Soares, C. (DP-04) 77
de Almeida, A.A. (BR-10) 39
de Almeida, A.A. (BR-11) 39
de Almeida, A.A. (BR-12) 39
de Andrade, L.H. (AP-06) 15
de Araujo Machado, F. (BQ-05) 37
de Araújo, J. (CS-06) 62
de Araújo, J. (VP4-17) 137
de Barros, A. (BE-07) 30
De Biasi, E. (DD-01) 68
De Boeck, J. (AD-02) 7
De Boeck, J. (BF-06) 32
de Camargo, P.C. (AS-08) 21
de Cos Elices, D. (EB-08) 86
De Coster, A. (BF-03) 32
De Gendt, S. (BF-03) 32
de Lacerda, M.S. (CQ-07) 60
de Lima, F.C. (CP-06) 57
de Medeiros, R.F. (CS-14) 63
de Melo Lima, T. (DF-11) 74
de Menezes, R.M. (CB-03) 44
de Moraes, I.G. (CG-08) 55
de Morais, A. (CQ-03) 59
de Morais, A. (CQ-04) 59
de Morais, A. (EQ-04) 100
de Oliveira Barros, A. (EE-11) 93
de Oliveira Freitas
Lione, V. (EP-06) 99
de Oliveira Gurgel
Rebouças, G. (AP-12) 16
de Oliveira, A.H. (CQ-09) 60
de Oliveira, A.J. (AS-08) 21
de Oliveira, A.J. (BC-05) 26
de Oliveira, A.J. (BC-09) 27
de Oliveira, A.J. (CS-07) 63
de Oliveira, A.J. (DF-11) 74
de Oliveira, J.M. (CQ-03) 59
de Oliveira, J.M. (CQ-04) 59
de Oliveira, J.M. (EQ-04) 100
de Oliveira, N.A. (DR-10) 81
De Paoli, J. (CS-05) 62
de Paula Miranda, I. (AG-02) 13
de Siqueira, N.L. (CQ-04) 59
de Souza Chaves, D. (DQ-07) 79
de Souza Chaves, D. (FB-02) 105
de Souza Silva, C.C. (BG-04) 34
de Souza Silva, C.C. (CB-03) 44
de Souza Silva, C.C. (DQ-02) 78
de Souza, P.E. (AS-08) 21
de Wergifosse, S. (AE-07) 10
de Wergifosse, S. (CC-09) 47
de Wergifosse, S. (CF-08) 53
Decker, R. (BD-05) 29
Deenen, A.J. (BB-10) 25
Deenen, A.J. (DB-03) 65
Deepak, F.L. (FD-05) 110
Deka, N. (EB-01) 85
Del Giacco, A. (DB-07) 66
Delafosse, C. (DE-04) 71
Deledda, S. (EE-05) 92
Delin, A. (ER-07) 101
Della Maggiora, G. (DD-06) 69
Delmonte, M.R. (CQ-04) 59
Demicoli, J. (CE-10) 51
Demin, G.D. (VP6-11) 140
Demirer, E. (BD-01) 28
Dempsey, N. (CF-11) 53
Denardin, J.C. (CQ-13) 60
Deng, B. (AR-15) 20
Deng, Q. (VP10-14) 147
Deng, S. (VP10-15) 148
Deniz, H. (BP-05) 35
Denneulin, T. (AC-05) 5
Denneulin, T. (CD-06) 48
Denneulin, T. (CP-02) 57
Denneulin, T. (DG-02) 75
Dennis, C. (BC-01) 26
Deshpande, U. (VP8-07) 144
Desplat, L. (AA-03) 1
Devillers, T. (CF-11) 53
Dhagat, P. (DF-02) 73
Dhesi, S.S. (FB-01) 105
Dhillon, S. (FF-08) 114
Dhull, S. (CC-01) 45
di Girolamo, A. (DD-07) 70
Di Pietro, A. (GB-07) 119
Dias Nakashima, A.T. (FG-08) 116
Dias, J. (AR-01) 19
Dias, M.B. (DE-09) 72
Dias, M.B. (ES-04) 103
Dias, M.B. (ES-12) 103
Díaz de Aguilar, J. (GA-03) 117
Díaz, E. (BD-03) 28
Dieing, T. (DR-02) 80
Dieny, B. (DD-03) 69
Dieny, B. (ED-01) 89
Diep, H.T. (DQ-09) 79
Dietz, C. (DE-02) 71
Dilmieva, E. (DR-03) 80
Dilmieva, E. (FG-03) 115
DiNápoli, S. (BF-09) 33
Ding, S. (VP10-23) 148
Ding, S. (VP11-05) 150
Diop, L.V. (DR-03) 80
Dirba, I. (DE-05) 71
Dirba, I. (ED-05) 90
Dirba, I. (ES-07) 103
Dirba, I. (VP4-01) 135
Disdier, F. (AA-03) 1
Djuzhev, N.A. (VP6-11) 140
Dlubak, B. (CG-04) 55
Dlubak, B. (CP-10) 58
Dlubak, B. (CP-12) 58
do Carmo, D. (CR-03) 61
Do, V. (VP12-17) 153
Doan, V. (VP7-01) 141
Dobák, S. (EF-01) 94
Dobák, S. (EF-06) 95
Dobrowolska, M. (VP7-05) 141
Dodge, B. (VP4-13) 137
Dohi, T. (GD-05) 123
Dohi, T. (GD-09) 124
Dolai, C. (ER-10) 102
Dolai, C. (VP6-04) 139
Domenig, L.D. (EQ-05) 100
Domenjoud, M. (EF-05) 94
Domenjoud, M. (EF-08) 95
Dong, T. (VP5-07) 139
Dong, T. (VP5-08) 139
Dong, T. (VP10-04) 146
Dong, T. (VP15-12) 160
Dong, T. (VP15-13) 161
Dong, Z. (VP5-03) 138
Donizeth dos Reis, R. (CR-03) 61
Donner, W. (ED-05) 90
Döring, A.M. (DR-05) 81

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Döring, A.M. (FG-06) 116
dos Santos, A. (FG-01). 114
dos Santos, B.D. (AQ-10) 17
dos Santos, J.R. (DF-11) 74
Dou, Y. (VP9-07) 145
Dou, Y. (VP15-11) 160
Dou, Y. (VP15-17) 161
Dragos-Pinzaru, O.G. (VP7-03). . . . 141
Drappier, J. (EQ-02). 99
Drouard, M. (EA-05) 84
Drozdz, P. (GD-02) 122
Du, A. (AD-05) 7
Du, A. (BQ-01) 36
Du, M. (VP9-06) 145
Du, M. (VP13-10) 156
Du, Y. (VP1-11) 131
Du, Y. (VP1-13) 132
Du, Y. (VP3-06) 133
Du, Y. (VP10-02) 146
Du, Z. (VP15-10) 160
Duarte de Melo, R. (AQ-11) 18
Dubois, S.M. (CG-04) 55
Dubois, S.M. (CP-12) 58
Dubs, C. (DB-08). 66
Dubs, C. (EG-09) 97
Ducharne, B. (BE-11) 31
Ducharne, B. (DF-03) 73
Ducharne, B. (EF-05). 94
Ducharne, B. (VP4-03) 136
Dufouleur, J. (GD-06) 123
Dufour, P. (GD-07). 123
Dugato, D. (DG-03) 75
Dugato, D.A. (DQ-11) 80
Dunin-Borkowski, R.E. (AC-05). 5
Dunin-Borkowski, R.E. (CD-06). . . . 48
Dunin-Borkowski, R.E. (CP-02) 57
Dunin-Borkowski, R.E. (DG-02). . . . 75
Dunin-Borkowski, R.E. (EE-04) 92
Duque, J. (AS-02) 21
Durgun, A. (ES-07) 103
Durin, G. (GB-07) 119
Dussan Cuenca, A. (AQ-04) 17
Dussan Cuenca, A. (BP-03) 35
Dussan Cuenca, A. (CQ-05). 59
Dutra, R. (CQ-09) 60
Dutra, R. (EG-02) 96
Dutta, D. (DG-02) 75
Dutta, S. (CD-05). 48
Dutton, B. (AS-05). 21
Dyck, V. (BE-05) 30

- E -

Ebels, U. (AA-03) 1
Ebels, U. (BP-08). 36
Eberbeck, D. (AB-06) 3
Ebrahimi, A. (BE-07). 30
Eckert, P. (DP-03) 77
Eckert, P. (DP-04) 77
Eda, G. (DG-04). 76
Eggert, B. (DR-03). 80
Eggert, B.G. (DR-01). 80
Eggert, B.G. (DR-05). 81
Ehresmann, A. (AB-04) 3
Ehresmann, A. (FB-08) 107
Ek, M. (BC-06) 27
El-Gendy, A. (EE-11). 93
El-Ghazaly, A. (AF-07) 12
El-Ghazaly, A. (FE-04) 111
El-Ghazaly, A. (GB-08) 120
Elabbasi, M. (EE-11) 93
Ellis, M.O. (AA-01). 1
Elzenheimer, E. (BF-01) 31
Encica, L. (DC-05). 68
Endo, Y. (VP14-02) 157
Endo, Y. (VP14-04) 157
Endoh, T. (VP6-08) 140
Engel-Herbert, R. (DG-06) 76
Englert, J. (DR-02). 80
Ensinger, W. (GB-06). 119
Erb, D. (VP6-09) 140
Erdélyi, R. (CB-07) 44
Eriksson, O. (DE-03). 71
Eriksson, O. (ER-07) 101
Eroglu, A. (VP13-09). 156
Escarate, J. (CE-05) 50
Escoda-Torroella, M. (AB-07). 3
Escrig, J. (GG-04) 129
Espina, J. (DR-07) 81
Espindola, A.A. (FE-03) 111
Espinosa, A. (GG-02). 128
Estrada, F.R. (BF-05). 32
Everaert, K. (AB-06) 3

- F -

F. S. Azeredo, L. (AQ-02) 16
F. S. Azeredo, L. (GG-06) 129
Fáberová, M. (EF-01) 94
Fabris, F. (BR-10) 39
Fabris, F. (BR-12) 39
Fagan, P. (EF-05) 94
Fan, D. (VP1-06) 131
Fan, D. (VP1-14) 132
Fan, D. (VP10-18) 148
Fan, Y. (AR-04) 19
Fang, B. (CC-10) 47
Fang, S. (VP10-16) 148
Fang, S. (VP10-20) 148
Fang, S. (VP13-05) 155
Fang, Y. (ES-11). 104
Fang, Y. (ES-14). 104
Fang, Y. (VP10-01) 146
Fangohr, H. (AE-09) 10
Fangohr, H. (AE-11) 11
Fangohr, H. (EC-09) 89
Faramarzi, S. (BA-04) 23
Farias, R. (DE-09) 72
Farkhani, H. (CC-04). 46
Fassatoui, A. (BG-01) 34
Fassbender, J. (GG-05) 129
Faupel, F. (EB-07) 86
Favarato, L. (AR-01) 19
Favaro, D. (AC-09) 6
Fawal, T. (EB-01). 85
Fazzio, A. (CP-06) 57
Fecher, G. (AQ-09) 17
Fedina, A.D. (VP6-11) 140
Felipe Silva Tupan, L. (VP4-17). . . . 137
Felix, J. (DG-03) 75
Feng, C. (VP1-03) 131
Feng, C. (VP10-24) 149
Feng, Q. (VP13-13) 156
Feng, W. (VP5-07). 139
Feng, W. (VP5-08). 139
Feng, Y. (CP-07) 57
Feng, Y. (VP10-32) 149
Feng, Y. (VP12-14) 153
Feng, Y. (VP12-15) 153
Fernandes dos Santos
Ramalho, F. (VP13-02). 154
Fernandes, L. (AS-02) 21
Fernandes, T. (AP-06) 15
Fernández de Luis, R. (AF-10) 13
Fernandez Outon, L. (ES-13). 104
Fernandez-Jimenez, R. (GF-05). . . . 127
Fernández-Roldán, J. (GB-06). 119
Fernandez-Roldan, J. (VP6-09). . . . 140
Fernandez, E. (EB-08). 86
Ferrara, E. (DF-09) 74
Ferrara, E. (GF-10) 128
Ferreira Flores Filho, A. (DP-03). . . . 77
Ferreira Flores Filho, A. (DP-04). . . . 77
Ferreira, A. (CQ-03). 59

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Ferreira, A. (EQ-04) 100
Ferreira, J.C. (AR-02) 19
Ferreira, J.C. (VP14-17) 159
Ferreira, R. (AA-02) 1
Ferreira, R. (AA-03) 1
Ferreira, R. (AC-02) 4
Ferreira, R. (BP-08) 36
Ferreira, R. (CC-04) 46
Ferreira, R. (CF-06) 53
Ferreira, R. (EB-06) 86
Ferreira, R. (EB-09) 87
Ferreira, R. (EG-02) 96
Ferreira, R. (FD-05) 110
Ferreira, W.L. (AS-03) 21
Ferreira, W.L. (CS-11) 63
Fert, A. (AC-05) 5
Fert, A. (AD-05) 7
Fert, A. (BQ-01) 36
Fert, A. (CD-06) 48
Fertig, B. (ES-05) 103
Fertig, B. (ES-06) 103
Fidelis Peixer, G. (FG-06) 116
Fidelis Peixer, G. (FG-07) 116
Fidelis Peixer, G. (FG-08) 116
Figueiredo-Prestes, N. (FF-08) 114
Figueiredo, L.C. (BR-05) 38
Figueroa, A.I. (AB-07) 3
Fillion, C. (BG-01) 34
Finch, G. (GA-06) 118
Finco, A. (GD-07) 123
Finizio, S. (BF-07) 33
Finkel, P. (GB-04) 119
Finocchio, G. (AA-06) 2
Finocchio, G. (AD-04) 7
Finocchio, G. (AG-01) 13
Finocchio, G. (CC-06) 46
Finocchio, G. (CF-05) 52
Finocchio, G. (EG-11) 98
Finocchio, G. (GB-05) 119
Fiorillo, F. (DF-09) 74
Fiorillo, F. (EF-04) 94
Fischbacher, J. (CF-11) 53
Fischer, J. (BG-01) 34
Flament, C. (DE-04) 71
Flatau, A. (VP4-06) 136
Flauger, P. (AF-05) 12
Fleischmann, C. (BP-02) 35
Fleischmann, C. (FD-07) 110
Foerster, M. (GD-05) 123
Foggiatto, A.L. (AP-01) 14
Foggiatto, A.L. (AP-09) 15
Foggiatto, A.L. (AP-11) 16
Föhlisch, A. (BD-05) 29
Fontchastagner, J. (GE-09) 125
Forg, S. (ED-05) 90
Förster, D.F. (CE-07) 50
Förster, J. (BB-02) 24
Fossard, F. (CP-12) 58
Fournier, P. (FG-10) 116
Fraile Rodríguez, A. (AB-07) 3
Fraile, L.B. (BA-03) 23
França, W. (AR-01) 19
Franceschini, D. (GB-03) 118
Franco, C. (FC-08) 108
Franco, V. (DR-09) 81
Franklin, R. (DD-04) 69
Frano, A. (AC-06) 5
Fransson, J. (ER-07) 101
Fransson, P. (VP10-29) 149
Freeman, C. (DG-04) 76
Freire, R.M. (DR-07) 81
Freitas, A.S. (VP9-02) 145
Freitas, M.R. (CS-07) 63
Freitas, P. (GA-02) 117
Freitas, P. (VP13-03) 155
Freitas, P.P. (AC-02) 4
Freitas, R.S. (BR-03) 38
Fried, S. (BA-05) 23
Froes, F. (AF-09) 12
Frommen, C. (DR-01) 80
Frommen, C. (DR-05) 81
Frömter, R. (EC-09) 89
Frömter, R. (GD-05) 123
Frömter, R. (GD-09) 124
Frontera, C. (CP-10) 58
Frontzek, M. (FG-01) 114
Frottier, T. (BP-01) 35
Frottier, T. (CD-08) 49
Frottier, T. (ER-02) 101
Fu, R. (VP5-07) 139
Fu, R. (VP5-08) 139
Fu, S. (CP-02) 57
Fu, S. (DG-02) 75
Fuentealba, J. (DR-07) 81
Fujii, Y. (CE-11) 51
Fukuda, I. (VP2-02) 132
Fukunaga, H. (VP2-02) 132
Fullerton, E. (AC-06) 5
Fullerton, E. (CF-02) 52
Fullerton, E. (CG-11) 56
Funatani, S. (DD-09) 70
Furdyna, J. (AS-11) 22
Furdyna, J. (VP7-05) 141
Furuya, Y. (VP4-07) 136
Fushimi, M. (BA-02) 22
Fushimi, M. (DD-08) 70
Fushimi, M. (DD-09) 70
Fusil, S. (GD-07) 123
Fusnik, L. (VP13-03) 155
Fuzer, J. (EF-01) 94
Fuzer, J. (EF-06) 95

- G -

G. Suresh, K. (VP4-16) 137
G. Suresh, K. (VP4-18) 137
G.Saiz, P. (DF-01) 73
Gajst, J. (AQ-03) 16
Gajst, J. (AQ-16) 18
Galbiati, M. (CG-04) 55
Galbiati, M. (CP-10) 58
Galbiati, M. (CP-12) 58
Galceran, R. (CG-04) 55
Galceran, R. (CP-10) 58
Galceran, R. (FF-06) 113
Gallardo, R. (CA-01) 42
Gallardo, R. (FB-09) 107
Gallino, I. (GF-10) 128
Gallo-Cordova, A. (AB-07) 3
Gama Monteiro, M. (AC-09) 6
Gambardella, P. (EA-02) 84
Gamino, M. (BQ-04) 37
Gamino, M. (CG-10) 56
Gamino, M. (CP-06) 57
Gamino, M. (EG-06) 97
Gamzatov, A. (DR-06) 81
Gamzatov, A. (FG-02) 115
Gandia, D. (AF-08) 12
Gandla, N. (VP4-18) 137
Ganesh, K.R. (CC-01) 45
Ganss, F. (GG-05) 129
Gao, H. (VP12-19) 154
Gao, H. (VP12-20) 154
Gao, J. (VP10-21) 148
Gao, S. (VP10-07) 147
Gao, Y. (BE-11) 31
Gao, Y. (VP10-07) 147
Gao, Y. (VP10-32) 149
Gao, Y. (VP12-14) 153
Gao, Y. (VP12-15) 153
Garaei, S. (CE-04) 50
Garaio, E. (AF-08) 12
Garandet, J. (DE-04) 71
García Sánchez, F. (GB-07) 119

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

García-Arribas, A. (AF-10) 13
García-Arribas, A. (EB-08) 86
Garcia-Basabe, Y. (CP-06) 57
García-Gómez, A. (DF-08) 74
García-Martín, J. (GG-02) 128
Garcia-Martin, J. (GG-04) 129
García-Rubio, I. (EC-10) 89
Garcia, C. (AQ-06) 17
Garcia, C. (AQ-15) 18
Garcia, F. (AS-06) 21
Garcia, F. (CR-03) 61
Garcia, F. (DG-03) 75
García, I. (AB-07) 3
Garcia, J. (BC-08) 27
García, J. (DD-01) 68
Garcia, J. (GB-06) 119
Garcia, J.H. (BG-10) 35
Garcia, V. (GD-07) 123
Gardingo, M.O. (FB-02) 105
Garello, K. (ER-05) 101
Garg, A. (AE-02) 9
Garrido-Segovia, M. (GG-02) 128
Gartside, J. (AA-01) 1
Gasser, M. (AB-08) 3
Gassmann, J. (ES-07) 103
Gaudin, G. (BG-01) 34
Gaufrès, E. (CG-04) 55
Ge, J. (VP14-12) 158
Ge, X. (DB-08) 66
Geelen, S. (FE-08) 112
Genezini, F.A. (AS-03) 21
George, J. (AC-05) 5
George, J. (CD-06) 48
George, J. (FF-08) 114
George, J. (GD-07) 123
Gerada, C. (VP12-17) 153
Gerada, C. (VP12-18) 154
Gerada, D. (VP12-17) 153
Gerada, D. (VP12-18) 154
Gerhards, P. (CC-07) 47
Geshev, J. (AQ-02) 16
Geshev, J. (GG-06) 129
Geslin, P. (DF-03) 73
Gestoso, G. (EB-08) 86
Geuchies, J. (DG-02) 75
Ghanbaja, J. (AP-10) 15
Ghanbaja, J. (CG-07) 55
Ghavimi, A. (GF-10) 128
Ghemes, C. (VP7-03) 141
Ghising, P. (AP-04) 15
Ghivelder, L. (FG-04) 115
Ghosh, D. (ER-10) 102
Ghosh, D. (VP6-04) 139
Ghosh, S. (AC-04) 4
Giblin, S.R. (BA-06) 23
Giesen, U. (CE-07) 50
Giner-Planas, J. (EC-10) 89
Giorgione, E. (BF-03) 32
Girt, E. (GD-03) 122
Giuliano, D. (FD-07) 110
Gkouzia, G. (EE-04) 92
Glownia, J.M. (CF-02) 52
Go, D. (EA-05) 84
Godel, F. (CG-04) 55
Godel, F. (CP-10) 58
Godel, F. (CP-12) 58
Goennenwein, S. (GD-08) 124
Goering, E. (GD-03) 122
Goijman, D. (BF-09) 33
Goijman, D. (CQ-06) 59
Golebiewski, M. (BB-05) 25
Gomes Filho, J. (AQ-01) 16
Gomes, A. (AQ-11) 18
Gomes, A. (FG-04) 115
Gomes, A. (FG-09) 116
Gomez Quispe, J.R. (DQ-04) 79
Gómez-Cordoba, H. (DR-04) 81
Gomez-Iriarte, G.A. (CB-08) 45
Gomez-Pastora, J. (VP4-13) 137
Gomez-Polo, C. (AF-08) 12
Gómez, A. (GF-05) 127
Gomez, G. (DR-03) 80
Gomez, G. (FG-05) 115
Gomez, J. (BF-09) 33
Gomez, J. (CG-07) 55
Gomez, J. (EG-10) 98
Gomonay, O. (GD-02) 122
Gonçalves Tobias
dos Santos, L. (DP-04) 77
Gonçalves, R. (BC-09) 27
Gonçalves, S.T. (DS-02) 82
Gong, Y. (AR-12) 20
Gong, Y. (AR-13) 20
Gong, Y. (AR-14) 20
Gong, Y. (AR-15) 20
Gong, Y. (BS-01) 40
Gong, Y. (DP-01) 77
Gong, Y. (GC-02) 120
Gonzalez
Betancourt, R.D. (GD-06) 123
Gonzalez Villegas, A. (GF-06) 127
Gonzalez-Chavez, D. (AQ-01) 16
Gonzalez-Chavez, D. (BB-11) 25
Gonzalez-Chavez, D. (CB-08) 45
Gonzalez-Chavez, D. (CQ-09) 60
Gonzalez-Chavez, D. (CR-07) 61
Gonzalez-Chavez, D. (GF-04) 127
Gonzalez-Fuentes, C. (CQ-10) 60
Gonzalez-Fuentes, C. (FD-04) 110
González-Hernández, R. (AC-04) 4
Gonzalez, A.S. (BC-08) 27
Gonzalez, A.S. (GB-06) 119
Gonzalez, C. (AQ-06) 17
Gonzalez, J.L. (CQ-08) 60
González, J.M. (GF-05) 127
González, M.I. (DF-06) 73
González, T.F. (DF-06) 73
Gorai, A. (GC-08) 121
Gorchon, J. (BD-03) 28
Gorobtsov, O. (CF-02) 52
Gotlieb, K. (EB-01) 85
Goto, T. (AF-03) 11
Goto, T. (DB-04) 66
Gotoh, Y. (VP13-01) 154
Gottschall, T. (VP9-01) 144
Gouveia, G.L. (CS-07) 63
Goya, G.F. (DD-01) 68
Goyal, A. (BA-04) 23
Grayson, M.A. (AD-04) 7
Greaves, S. (AD-10) 8
Greaves, S. (BP-11) 36
Greca, I.R. (CQ-11) 60
Grezes, C. (ER-05) 101
Griffin, D. (AA-01) 1
Griggs, W. (BP-07) 35
Griggs, W. (DQ-03) 79
Grigoras, M. (ES-10) 103
Grimaldi, A. (CC-06) 46
Grishin, S.V. (AS-13) 22
Grishin, S.V. (CR-05) 61
Grishin, S.V. (VP13-04) 155
Grivel, J. (DR-01) 80
Grochot, K. (BG-05) 34
Grollier, J. (AC-02) 4
Grosz, A. (EB-10) 87
Gruber, R. (EC-09) 89
Grundler, D. (BB-10) 25
Grundler, D. (CB-02) 43
Grundler, D. (DB-03) 65
Grundler, D. (DB-04) 66
Gruszczyk, K. (CE-01) 49
Gruszecki, P. (BB-05) 25

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Gruszecki, P. (BB-07) 25
Gu, K. (BP-05) 35
Gu, K. (CP-01) 56
Gu, R. (AR-15) 20
Gu, Y. (GC-02) 120
Gualdi, A.J. (AS-01) 20
Gualdi, A.J. (CS-07) 63
Guan, B. (VP10-06) 146
Guan, Y. (BP-05) 35
Gubert, G. (BC-09) 27
Guedas, R. (FD-08) 110
Gueneau, C. (BG-01) 34
Guerra, J.A. (BR-07) 39
Guettinger, J. (EC-08) 88
Guettinger, J. (EC-09) 89
Gui, S. (VP1-05) 131
Gui, X. (VP10-14) 147
Guillet, T. (FF-06) 113
Guimarães, A.M. (AS-16) 22
Guimarães, A.O. (CS-03) 62
Guimarães, A.P. (AP-02) 15
Guina, M. (CQ-01) 59
Gunduz Akdogan, N. (BC-04) 26
Gungordu, B. (BC-04) 26
Günzing, D. (EE-04) 92
Guo, H. (BB-10) 25
Guo, H. (DB-03) 65
Guo, H. (VP11-11) 151
Guo, L. (GA-05) 118
Guo, M. (GE-08) 125
Guo, Z. (AD-05) 7
Guo, Z. (BQ-01) 36
Gupta, R. (EA-05) 84
Gupta, R. (EB-02) 85
Gupta, S. (CC-08) 47
Gupta, S. (DR-09) 81
Gupta, S. (GG-09) 130
Guruwatta Vidanalage, B. (BE-12) . . . 31
Gusenbauer, M. (CF-11) 53
Gusliyenko, K. (AG-03) 13
Gutfleisch, O. (DE-02) 71
Gutfleisch, O. (DE-05) 71
Gutfleisch, O. (DR-03) 80
Gutfleisch, O. (DR-05) 81
Gutfleisch, O. (DR-11) 82
Gutfleisch, O. (ED-05) 90
Gutfleisch, O. (EE-02) 92
Gutfleisch, O. (ES-01) 102
Gutfleisch, O. (ES-07) 103
Gutfleisch, O. (FG-01) 114
Gutfleisch, O. (FG-05) 115
Gutfleisch, O. (FG-06) 116
Gutfleisch, O. (VP4-01) 135
Gutfleisch, O. (VP9-01) 144
Gutiérrez, J. (AF-10) 13
Guyomarch, F. (EQ-02) 99
Guzman, V. (EB-01) 85

- H -

Habelok, K. (CE-01) 49
Hadimani, R.L. (AB-05) 3
Hadimani, R.L. (DR-09) 81
Hadimani, R.L. (ED-06) 91
Hadimani, R.L. (EP-01) 98
Hakam, A. (AA-03) 1
Hakam, A. (BP-08) 36
Hakkarainen, T. (CQ-01) 59
Hallal, A. (CP-10) 58
Haltz, E. (CA-02) 42
Hamadeh, A. (CF-05) 52
Hamasaki, H. (DS-09) 83
Hamdi, M. (AD-04) 7
Hamzehbahmani, H. (BE-01) 29
Hamzehbahmani, H. (BE-11) 31
Han, D. (VP7-13) 142
Han, H. (AP-03) 15
Han, H. (EG-05) 97
Han, H. (VP6-06) 140
Han, H.S. (BS-03) 41
Han, R. (AR-12) 20
Han, R. (AR-13) 20
Han, R. (AR-14) 20
Han, R. (BS-01) 40
Han, R. (DP-01) 77
Han, S. (EA-01) 84
Han, S. (EC-03) 88
Han, W. (VP6-05) 140
Han, X. (CR-02) 61
Han, X. (ER-04) 101
Han, X. (FA-03) 105
Hane, Y. (BE-04) 30
Hane, Y. (BE-06) 30
Hang, J. (VP10-23) 148
Hang, J. (VP11-05) 150
Hanke, M. (DG-06) 76
Hanna, F. (AB-05) 3
Hanson, A. (EF-12) 95
Hanstorp, D. (FB-04) 106
Haponchyk, R.V. (GC-07) 121
Harmon, S. (DF-09) 74
Harmon, S. (GA-06) 118
Harpel, A. (DD-04) 69
Harrison, G. (FB-06) 106
Hartmann, C. (VP4-01) 135
Hartzell, C. (VP9-04) 145
Hasan, M. (ED-03) 90
Hasan, M. (ES-07) 103
Hase, T. (CS-04) 62
Hasidim, N. (EB-10) 87
Hassan, M. (AG-05) 14
Hatakeyama, H. (CE-12) 51
Hauback, B.C. (DR-01) 80
Hauback, B.C. (DR-05) 81
Hauback, B.C. (EE-05) 92
Hayes, P. (BF-01) 31
Hayward, T. (AA-01) 1
Hazra, B. (BP-05) 35
He, B. (DQ-10) 79
He, B. (VP6-05) 140
He, C. (VP1-07) 131
He, C. (VP1-10) 131
He, J. (GE-08) 125
He, J. (VP10-14) 147
He, J. (VP12-16) 153
He, S. (VP12-06) 152
He, X. (VP3-09) 134
He, Z. (VP3-06) 133
Healey, A. (FB-06) 106
Hehn, M. (BD-03) 28
Heigl, M. (AG-05) 14
Heinz, B. (CB-07) 44
Heinz, B. (DB-08) 66
Helbig, S. (AB-11) 4
Helbig, S. (EB-02) 85
Helden, D. (BA-04) 23
Herfort, J. (DG-06) 76
Hermosilla, J. (CQ-13) 60
Herper, H.C. (DE-03) 71
Hersam, M.C. (AD-04) 7
Hicken, R. (DG-04) 76
Hicken, R. (EG-04) 96
Hickey, B.J. (GB-05) 119
Hickey, B.J. (GB-07) 119
Higashi, K. (VP2-02) 132
Higo, T. (DG-01) 75
Higo, T. (GD-04) 123
Hillard, B. (EF-07) 96
Hillebrands, B. (BB-04) 24
Hippert, F. (CD-08) 49
Hiraoka, Y. (AP-09) 15
Hiraoka, Y. (AP-11) 16

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Hirayama, Y. (DE-08) 72
Hirayama, Y. (ES-08) 103
Hiroi, M. (VP4-14) 137
Hiura, S. (CQ-01) 59
Hlenschi, C. (DS-10) 83
Hloskovsky, A. (AQ-09) 17
Hlova, I.Z. (EE-01) 92
Ho, K. (EG-02) 96
Hoez, A. (DS-01) 82
Hoez, A. (GC-03) 121
Hoffman, S. (CP-10) 58
Hoffmann, A. (AG-04) 14
Hoffmann, A. (CG-11) 56
Hoffmann, K. (DF-09) 74
Hofmann, T. (FE-01) 111
Höft, M. (BF-01) 31
Höjer, P. (CQ-01) 59
Hojo, T. (DS-09) 83
Hollenberg, L. (FB-06) 106
Holmes-Hewett, W.F. (AD-01) 6
Holobradek, J. (BB-08) 25
Holobradek, J. (CB-09) 45
Holt, S.J. (AE-09) 10
Holt, S.J. (AE-11) 11
Homrocky, N. (AF-04) 12
Honda, J. (EP-05) 99
Hong, H. (BS-05) 41
Hong, H. (BS-13) 42
Hong, H. (EQ-12) 100
Hong, J. (CP-11) 58
Hong, J. (DD-02) 69
Hong, M. (BS-06) 41
Hong, S. (BG-06) 34
Hong, Y. (CF-11) 53
Hong, Y. (ED-03) 90
Hopper, M. (BA-04) 23
Hossain, Z. (AP-04) 15
Hou, Y. (AC-11) 6
Houshang, A. (FB-04) 106
Hovančík, D. (DG-08) 76
Hristoforou, E.V. (DR-08) 81
Hrkac, S.B. (CF-02) 52
Hrton, M. (AS-12) 22
Hrton, M. (BB-08) 25
Hsieh, C. (CG-03) 54
Hsieh, M. (BS-08) 41
Hsieh, M. (DC-06) 68
Hsieh, M. (VP12-17) 153
Hsin, A. (EB-01) 85
Hsu, J. (AD-06) 8
Hsu, J. (CG-09) 56
Htet, H. (AF-07) 12
Hu, C. (VP12-13) 153
Hu, H. (CE-08) 50
Hu, H. (GE-08) 125
Hu, H. (VP12-16) 153
Hu, M. (VP10-13) 147
Hua, N. (CF-02) 52
Huai, C. (GG-03) 129
Huang, H. (VP10-04) 146
Huang, H. (VP12-18) 154
Huang, H. (VP7-01) 141
Huang, J. (DR-11) 82
Huang, J. (VP10-25) 149
Huang, K. (VP10-32) 149
Huang, L. (VP5-06) 139
Huang, L. (VP10-13) 147
Huang, P. (VP5-01) 138
Huang, P. (VP7-20) 143
Huang, P. (VP14-06) 157
Huang, R. (EC-06) 88
Huang, R. (VP11-06) 150
Huang, R. (VP11-11) 151
Huang, R. (VP8-01) 143
Huang, S. (BF-07) 33
Huang, S. (CE-08) 50
Huang, S. (DC-06) 68
Huang, S. (GE-08) 125
Huang, S. (VP3-12) 134
Huang, S. (VP10-22) 148
Huang, S. (VP10-32) 149
Huang, S. (VP11-03) 150
Huang, S. (VP12-14) 153
Huang, S. (VP12-15) 153
Huang, S. (VP12-16) 153
Huang, S. (VP15-15) 161
Huang, X. (FF-02) 113
Huang, X. (VP10-03) 146
Huang, Y. (AD-06) 8
Huang, Y. (CC-02) 46
Huang, Y. (CG-09) 56
Huang, Y. (CQ-01) 59
Huang, Y. (EP-02) 98
Huang, Y. (VP7-06) 142
Hubert, J. (EB-01) 85
Hubert, O. (AF-09) 12
Hübner, J.M. (BC-06) 27
Hug, H.J. (EB-02) 85
Hug, H.J. (EC-01) 87
Hug, H.J. (GB-05) 119
Huhnstock, R. (AB-04) 3
Huhnstock, R. (FB-08) 107
Humer, C. (AB-08) 3
Hung, A. (VP14-06) 157
Hung, C. (EP-02) 98
Hutin, L. (BP-08) 36
Hutin, L. (CD-08) 49
Huynh, A.T. (VP12-17) 153
Huynh, A.T. (VP12-18) 154
Hwang, C. (GB-07) 119
Hwang, S. (VP13-05) 155

- I -

Ibrahim, F. (BG-01) 34
Ibrahim, F. (BG-10) 35
Ibrahim, F. (CP-05) 57
Ibrahim, F. (CP-10) 58
Idzuchi, H. (DG-01) 75
Iino, A. (BA-02) 22
Iino, A. (DD-08) 70
Ikeda, S. (VP6-08) 140
Ikram, J. (VP1-12) 132
Ikram, J. (VP3-07) 134
Ikram, J. (VP3-08) 134
Ilgaz, F. (EB-07) 86
Ilhan Caarls, E. (CE-05) 50
Ilyin, N. (VP14-05) 157
Im, H. (GF-02) 126
Im, H. (GF-03) 126
Im, J. (ED-08) 91
Im, M. (AP-03) 15
Im, M. (EG-05) 97
Im, M. (VP6-06) 140
Im, S. (VP12-10) 153
Imai, Y. (FC-03) 107
Inada, K. (VP15-09) 160
Incorvia, J. (EF-12) 95
Inoue, K. (BA-02) 22
Inoue, M. (AF-03) 11
Inoue, M. (DB-04) 66
Inyang, O. (CS-04) 62
Ipatov, M. (DF-08) 74
Ipatov, M. (GF-06) 127
Irarrazaval, P. (DD-06) 69
Ishii, Y. (ES-01) 102
Ishiyama, K. (AF-03) 11
Ishiyama, K. (DB-04) 66
Islam, T. (VP13-09) 156
Isnard, O. (BQ-07) 37
Isoaho, R. (CQ-01) 59
Itagaki, A. (GC-10) 122

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Ito, K. (VP11-10) 151
Ivashita, F. (VP4-17) 137
Iyer, L. (CE-04) 50
Izquierdo, R. (FD-08) 110

- J -

J. Lopes, J. (DG-06) 76
Jaafar, M. (EG-08) 97
Jacobs, S. (EF-03) 94
Jacques, V. (GD-07) 123
Jaffrès, H. (AC-05) 5
Jaffrès, H. (CD-06) 48
Jaffrès, H. (FF-08) 114
Jaffrès, H. (GD-07) 123
Jaimes-Gómez, D.C. (DR-04) 81
Jaimes, K.S. (BP-03) 35
Jakob, G. (EA-05) 84
Jakob, G. (EB-02) 85
Jakob, G. (GB-07) 119
Jakob, G. (GD-09) 124
Jamet, M. (CG-08) 55
Jamet, M. (CQ-10) 60
Jami, M.A. (EE-10) 93
Jamilpanah, L. (EC-01) 87
Jana, A.K. (VP6-02) 139
Jander, A. (DF-02) 73
Jang, I. (DP-02) 77
Janssens, W. (AD-02) 7
Jansson, M. (AS-05) 21
Janzen, C. (FB-08) 107
Jaramillo, G. (EB-01) 85
Je, S. (AP-03) 15
Jeng, J. (VP7-01) 141
Jenkins, A. (AA-02) 1
Jenkins, A. (AA-03) 1
Jenkins, A. (BP-08) 36
Jenkins, A. (CC-04) 46
Jenkins, A. (CF-06) 53
Jenkins, A. (EB-09) 87
Jenkins, A. (FD-05) 110
Jeon, K. (CD-04) 48
Jeon, S. (VP1-08) 131
Jeong, J. (EF-11) 95
Jeong, J. (GF-02) 126
Jeong, J. (GF-03) 126
Jeong, S. (AP-03) 15
Jeong, S. (EG-05) 97
Jeong, S. (VP6-06) 140
Jesenovec, J. (AS-05) 21
Jhuria, K. (BD-03) 28
Ji, B. (VP5-07) 139
Ji, B. (VP5-08) 139
Ji, M. (VP2-01) 132
Ji, X. (EP-08) 99
Jian, Y. (AD-03) 7
Jian, Y. (AD-11) 8
Jiang, B. (VP15-12) 160
Jiang, C. (AR-04) 19
Jiang, C. (AR-05) 19
Jiang, J. (VP12-18) 154
Jiang, J.S. (AD-04) 7
Jiang, M. (VP11-12) 151
Jiang, W. (VP11-08) 151
Jiang, X. (VP12-06) 152
Jiang, Y. (FA-05) 105
Jiang, Y. (VP8-02) 144
Jiang, Y. (VP12-06) 152
Jiao, Y. (BD-01) 28
Jimenez, A.I. (BC-08) 27
Jin, B. (VP10-30) 149
Jin, B. (VP10-31) 149
Jin, B. (VP15-19) 161
Jin, C. (BS-05) 41
Jin, Z. (EB-04) 86
Jin, Z. (EC-03) 88
Jin, Z. (FC-04) 108
Jo, C. (BS-05) 41
Jo, C. (BS-13) 42
Jo, C. (EQ-12) 100
Jo, D. (EA-03) 84
Jo, N. (BS-06) 41
Jocher, A. (FE-01) 111
Joglekar, S. (CB-02) 43
Johansson, C. (BA-06) 23
Joisten, H. (DD-03) 69
Joisten, H. (ED-01) 89
Jonkman, R. (DC-05) 68
Joo, S. (DF-03) 73
Joseyphus, R. (VP14-18) 159
Joshi, S. (CS-16) 64
Joumard, I. (BG-01) 34
Jovic, V. (GD-06) 123
Jun, S. (VP10-11) 147
Jung, D. (BS-02) 40
Jung, D. (BS-03) 41
Jung, D. (BS-13) 42
Jung, D. (EG-05) 97
Jung, D. (VP6-06) 140
Jung, E. (EQ-07) 100
Jung, S. (VP10-11) 147
Jung, Y. (VP12-09) 152
Jungwirth, T. (GD-06) 123
Jungwirth, T. (GD-08) 124
Junior, A.C. (AR-02) 19
Junior, G.R. (AQ-08) 17
Junior, N.V. (ES-05) 103
Junior, P.O. (ES-02) 102
Jyothilal, H. (FB-06) 106

- K -

K. Sangwan, V. (AD-04) 7
K. Sinha, A. (VP4-18) 137
Kahourzade, S. (DC-04) 67
Kakazei, G.N. (AQ-15) 18
Kakazei, G.N. (GB-01) 118
Kaltenbacher, M. (EQ-05) 100
Kalyuzhnaya, D. (VP4-04) 136
Kamantsev, A.P. (FG-03) 115
Kammerbauer, F. (CC-07) 47
Kammerbauer, F. (EA-05) 84
Kammerbauer, F. (EB-02) 85
Kammerbauer, F. (GD-09) 124
Kamp, M. (GD-06) 123
Kanai, S. (DA-04) 65
Kanai, Y. (AD-10) 8
Kanai, Y. (DS-05) 82
Kanai, Y. (VP7-11) 142
Kandazoglou, A. (BP-01) 35
Kandazoglou, A. (CD-08) 49
Kandazoglou, A. (ER-02) 101
Kandazoglou, A. (ER-05) 101
Kang, B. (BS-13) 42
Kang, J. (VP7-13) 142
Kang, M. (AP-03) 15
Kang, M. (EE-06) 93
Kanomata, T. (VP4-14) 137
Kantartzis, N.V. (DS-05) 82
Kantorovich, S. (AB-11) 4
Kar, N. (BE-12) 31
Kar, N. (BS-09) 41
Kar, N. (DP-08) 78
Kar, N. (EQ-06) 100
Kar, N. (VP3-15) 135
Kar, N. (VP8-07) 144
Karatzidis, D.I. (DS-05) 82
Karki, S. (EB-01) 85
Karnaushenko, D. (DS-08) 83
Karri, M. (CS-16) 64
Kashyap, A. (VP7-10) 142
Kataev, V. (AB-02) 2

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Kato, H. (DF-03) 73
Kato, M. (VP5-09) 139
Kato, M. (VP11-10) 151
Kato, T. (CQ-14) 60
Kato, T. (EB-03) 85
Kato, T. (VP4-10) 136
Katz, J. (EB-01) 85
Kaur, D. (BF-02) 32
Kaushik, B.K. (CC-01) 45
Kaushik, B.K. (CC-04) 46
Kazakova, O. (DG-04) 76
Ke, L. (VP7-04) 141
Ke, L. (VP7-15) 142
Ke, Z. (VP5-04) 138
Keatley, P.S. (DG-04) 76
Keatley, P.S. (EG-04) 96
Keerthi, A. (FB-06) 106
Keirstead, S. (BA-04) 23
Kent, A.D. (CC-05) 46
Kent, A.D. (CG-11) 56
Kent, A.D. (DA-03) 64
Kentsch, U. (GG-05) 129
Kerber, M. (DB-06) 66
Kern, L. (CP-10) 58
Kessler, P. (GD-06) 123
Khalili Amiri, P. (AD-04) 7
Khalili, P. (GD-01) 122
Khametong, A. (VP7-12) 142
Khan, A. (ES-07) 103
Khan, A. (VP3-08) 134
Khan, L. (VP3-07) 134
Khan, M. (VP4-01) 135
Khandelwal, P. (DQ-08) 79
Khandelwal, P. (VP4-16) 137
Khannah, S. (EP-01) 98
Kharlan, J. (BB-07) 25
Kharlan, J. (CF-01) 51
Kidambi, P. (CP-10) 58
Kikuchi, T. (DD-08) 70
Kim, B. (AR-06) 19
Kim, C. (AR-16) 20
Kim, C. (DP-10) 78
Kim, D. (BS-03) 41
Kim, D. (VP4-05) 136
Kim, G. (AP-03) 15
Kim, G. (BG-06) 34
Kim, G. (EG-05) 97
Kim, G. (VP6-06) 140
Kim, H. (BS-12) 42
Kim, H. (DP-09) 78
Kim, H. (EF-11) 95
Kim, J. (AD-04) 7
Kim, J. (BS-11) 41
Kim, K. (DP-02) 77
Kim, K. (EA-01) 84
Kim, K. (EF-11) 95
Kim, K. (GF-02) 126
Kim, K. (GF-03) 126
Kim, K. (VP12-10) 153
Kim, P. (CB-05) 44
Kim, S. (AR-16) 20
Kim, S. (BG-06) 34
Kim, S. (DP-10) 78
Kim, S. (ED-08) 91
Kim, W. (AC-09) 6
Kim, W. (BS-02) 40
Kim, W. (BS-03) 41
Kim, W. (BS-06) 41
Kim, W. (BS-12) 42
Kim, W. (DP-02) 77
Kim, W. (VP7-09) 142
Kim, Y. (BG-06) 34
Kim, Y. (EF-11) 95
Kim, Y. (VP7-13) 142
Kim, Y. (VP10-11) 147
Kiminami, R.H. (CS-07) 63
Kinane, C. (CS-04) 62
Kioussis, N. (AD-04) 7
Kioussis, N. (CA-05) 43
Kirsch, M. (EB-02) 85
Kiselev, N. (AG-05) 14
Kita, E. (GG-07) 129
Kitayama, F. (VP5-09) 139
Kiwa, T. (VP13-07) 155
Klaes, R.M. (GG-11) 130
Kläui, M. (CC-07) 47
Kläui, M. (CP-02) 57
Kläui, M. (DG-02) 75
Kläui, M. (EA-05) 84
Kläui, M. (EB-02) 85
Kläui, M. (EC-09) 89
Kläui, M. (GB-07) 119
Kläui, M. (GD-05) 123
Kläui, M. (GD-09) 124
Klause, R. (CG-11) 56
Klautau, A.B. (AG-02) 13
Klautau, A.B. (DQ-01) 78
Klautau, A.B. (ER-07) 101
Kleibert, A. (BF-07) 33
Kleikemper, O. (CE-10) 51
Klein, L. (EB-10) 87
Klein, N.Y. (EC-05) 88
Klima, J. (BB-08) 25
Klima, J. (CB-09) 45
Klos, J.W. (BB-05) 25
Klos, J.W. (CF-01) 51
Klos, J.W. (DB-02) 65
Kmječ, T. (ED-05) 90
Knauer, S. (BB-03) 24
Knauer, S. (DB-06) 66
Knauer, S. (EG-09) 97
Knobel, M. (BF-10) 33
Knobel, M. (BR-12) 39
Knobloch, K. (CC-07) 47
Ko, H. (BG-06) 34
Ko, H. (EA-01) 84
Ko, H. (VP14-06) 157
Ko, K. (EA-03) 84
Ko, S. (BS-12) 42
Koch, D. (ED-05) 90
Koch, D. (VP9-01) 144
Koguchi, T. (AF-03) 11
Koguchi, T. (DB-04) 66
Kohl, F. (DB-07) 66
Koizumi, H. (AE-01) 9
Kolisnyk, R. (DD-04) 69
Kollár, P. (EF-01) 94
Kollár, P. (EF-06) 95
Kolomys, O. (AS-11) 22
Komuro, K. (EB-03) 85
Kondou, K. (GD-04) 123
Kondovych, S. (CA-04) 43
Kondratenko, O. (AS-11) 22
Koo, G. (AR-06) 19
Koo, H. (BS-13) 42
Koo, H. (EQ-12) 100
Koo, M. (VP11-04) 150
Koopmans, B. (BD-01) 28
Koraltan, S. (AE-09) 10
Koraltan, S. (AG-05) 14
Koraltan, S. (EB-02) 85
Koraltan, S. (EG-09) 97
Körber, R. (AB-06) 3
Kosaki, H. (DG-01) 75
Koshkid'ko, Y. (FG-03) 115
Kostylev, M. (GC-04) 121
Kostylev, M. (GC-07) 121
Kostyuchenko, N. (DE-07) 72
Koterla, D. (CE-01) 49
Kotsugi, M. (AE-04) 9
Kotsugi, M. (AP-01) 14
Kotsugi, M. (AP-09) 15
Kotsugi, M. (AP-11) 16
Kotte, T. (GD-06) 123

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Kou, X. (VP7-20) 143
Koujok, A. (CF-05) 52
Kounta, I. (GD-08) 124
Koutzoglou, I. (DS-05) 82
Kováč, F. (EF-06) 95
Kovács, A. (CD-06) 48
Kovacs, A. (CF-11) 53
Kovács, A. (CP-02) 57
Kovács, A. (DG-02) 75
Kovács, A. (EE-04) 92
Koziol Rachwal, A. (GD-02) 122
Kraft, R. (AE-09) 10
Krainova, G. (VP14-05) 157
Kramer, M.J. (EE-01) 92
Kramer, M.J. (EE-06) 93
Kramer, M.J. (EF-07) 96
Krämer, S. (FG-03) 115
Krause, R. (BA-01) 22
Krawczyk, M. (AG-03) 13
Krawczyk, M. (BB-05) 25
Krawczyk, M. (BB-07) 25
Krawczyk, M. (CB-06) 44
Krawczyk, M. (DB-05) 66
Krcma, J. (BB-08) 25
Krcma, J. (CB-09) 45
Kriegner, D. (GD-06) 123
Kriegner, D. (GD-08) 124
Krishna, V.D. (DD-07) 70
Krishnia, S. (AC-05) 5
Krishnia, S. (CC-07) 47
Krishnia, S. (CD-06) 48
Krizek, F. (GD-08) 124
Krohling, A.C. (AQ-10) 17
Krohling, A.C. (ES-13) 104
Kronast, F. (VP6-09) 140
Krylov, V. (DR-13) 82
Ktena, A. (DR-08) 81
Kuanr, B.K. (GC-09) 121
Kubíčková, L. (ED-05) 90
Kubota, T. (FC-03) 107
Kudasov, Y. (DE-07) 72
Kuepferling, M. (GB-07) 119
Kuester, F. (FF-09) 114
Kühn, F. (BB-04) 24
Kulesh, N. (AD-09) 8
Kumar A, S. (VP4-18) 137
Kumar, A. (CP-02) 57
Kumar, A. (DG-02) 75
Kumar, A. (FB-04) 106
Kumar, D. (CC-01) 45
Kumar, D. (FC-10) 109
Kumar, D. (FF-01) 112
Kumar, N. (BB-05) 25
Kumar, N. (EP-01) 98
Kumar, N. (VP7-02) 141
Kumar, R. (BG-01) 34
Kumar, R. (BS-09) 41
Kunca, B. (GF-01) 126
Kunz, U. (GB-06) 119
Kupnik, M. (VP4-01) 135
Kurebayashi, H. (DG-04) 76
Kuromizu, M. (VP13-01) 154
Kusch, M. (BD-05) 29
Kushibiki, R. (BP-09) 36
Küß, M. (AF-05) 12
Kuwahata, A. (DD-06) 69
Kuznetsov, A. (AB-11) 4
Kvashnin, Y. (ER-07) 101
Kwon, J. (VP7-13) 142
Kwon, S. (VP12-09) 152

- L -

L'vov, V.S. (BB-04) 24
Labanowski, D. (EB-01) 85
Labarta, A. (AB-07) 3
Lai, C. (CE-04) 50
Lal, K. (AP-04) 15
Lanceros-Mendez, S. (AF-06) 12
Lanceros-Mendez, S. (CG-06) 55
Lanchero D., Á.P. (CQ-05) 59
Landauro Saenz, C. (AP-10) 15
Landeros, P. (CA-01) 42
Landgraf, F. (CS-13) 63
Landgraf, F. (CS-15) 63
Landgraf, F. (DC-01) 67
Landgraf, F. (DE-09) 72
Landgraf, F. (ES-04) 103
Lang, M. (AE-09) 10
Lang, M. (AE-11) 11
Laprade, J. (EB-01) 85
Larrude, D.G. (CP-06) 57
Lasek, P. (CE-01) 49
Lasheras, A. (DF-01) 73
Laur, V. (DS-01) 82
Laur, V. (GC-03) 121
Lavrijsen, R. (BD-01) 28
Laza, J. (BR-16) 40
Le Besnerais, J. (BE-10) 31
Le Fevre, P. (FF-08) 114
Le Menach, Y. (EQ-02) 99
Le Saos-Kauten, A. (GC-03) 121
Lebourgeois, R. (DS-01) 82
Lebrun, R. (EG-02) 96
Lebrun, R. (FF-08) 114
Lebrun, R. (GD-07) 123
Ledesma, O. (EA-05) 84
Lednicky, T. (CB-09) 45
Lee, C. (CG-03) 54
Lee, C. (VP8-08) 144
Lee, D. (AR-06) 19
Lee, D. (VP8-06) 144
Lee, H. (AR-16) 20
Lee, H. (DP-10) 78
Lee, H. (EA-01) 84
Lee, H. (EA-03) 84
Lee, H. (VP7-13) 142
Lee, H. (VP11-04) 150
Lee, J. (AR-16) 20
Lee, J. (BA-05) 23
Lee, J. (BG-06) 34
Lee, J. (BP-10) 36
Lee, J. (BS-05) 41
Lee, J. (BS-13) 42
Lee, J. (DP-10) 78
Lee, J. (ED-07) 91
Lee, J. (ED-08) 91
Lee, J. (EQ-12) 100
Lee, J. (GF-02) 126
Lee, J. (GF-03) 126
Lee, J. (VP1-08) 131
Lee, J. (VP7-13) 142
Lee, J. (VP10-05) 146
Lee, J. (VP10-11) 147
Lee, J. (VP12-07) 152
Lee, K. (AP-03) 15
Lee, K. (BA-04) 23
Lee, K. (BG-06) 34
Lee, K. (DP-06) 78
Lee, K. (EA-01) 84
Lee, K. (EG-05) 97
Lee, K. (VP6-06) 140
Lee, K. (VP6-10) 140
Lee, K. (VP7-05) 141
Lee, K. (VP12-07) 152
Lee, M. (BG-06) 34
Lee, S. (BS-02) 40
Lee, S. (DP-06) 78
Lee, S. (ED-03) 90
Lee, S. (VP4-05) 136
Lee, S. (VP6-02) 139
Lee, S. (VP7-05) 141
Lee, S. (VP7-13) 142
Lee, Y. (BS-12) 42

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Lee, Y. (DP-02) 77
Lee, Y. (VP1-08) 131
Legut, D. (GD-03) 122
Leite Neto, O.F. (DR-13) 82
Leiviskä, M. (GD-08) 124
Leliaert, J. (AB-06) 3
Lemains, E. (BE-05) 30
Lemaitre, A. (BD-03) 28
Lemaitre, A. (FF-08) 114
Leng, Q. (DS-08) 83
Lenz, K. (BB-02) 24
León, C. (AC-02) 4
Leroy, F. (CD-08) 49
Lesota, O. (AB-08) 3
Leutner, K. (EC-09) 89
Levchenko, K. (AG-05) 14
Levchenko, K. (BB-03) 24
Lewandowski, M. (BP-07) 35
Leyens, C. (GG-05) 129
Li, C. (FF-07) 113
Li, D. (VP10-27) 149
Li, G. (VP10-12) 147
Li, H. (CE-08) 50
Li, H. (VP15-10) 160
Li, J. (BG-10) 35
Li, J. (CP-05) 57
Li, J. (VP3-16) 135
Li, J. (VP9-06) 145
Li, J. (VP10-19) 148
Li, J. (VP13-10) 156
Li, J. (VP14-10) 158
Li, J. (VP14-12) 158
Li, J. (VP14-16) 158
Li, K. (VP3-01) 133
Li, L. (CD-01) 48
Li, L. (VP3-16) 135
LI, M. (VP1-02) 130
Li, P. (BD-01) 28
Li, Q. (DG-07) 76
Li, Q. (VP3-12) 134
Li, Q. (VP10-22) 148
Li, R. (CC-04) 46
Li, R. (VP3-09) 134
Li, S. (AA-04) 1
Li, W. (CP-07) 57
Li, W. (ES-11) 104
Li, W. (ES-14) 104
Li, W. (VP2-03) 132
Li, W. (VP3-09) 134
Li, W. (VP3-11) 134
Li, W. (VP3-14) 134
Li, W. (VP5-05) 138
Li, W. (VP9-08) 145
Li, W. (VP10-23) 148
Li, W. (VP11-05) 150
Li, W. (VP12-08) 152
Li, X. (EC-10) 89
Li, X. (VP10-15) 148
Li, Y. (FD-07) 110
Li, Y. (VP2-01) 132
Li, Y. (VP2-04) 133
Li, Y. (VP3-01) 133
Li, Y. (VP3-16) 135
Li, Y. (VP5-06) 139
Li, Y. (VP9-07) 145
Li, Y. (VP10-13) 147
Li, Y. (VP10-23) 148
Li, Y. (VP11-05) 150
Li, Y. (VP12-08) 152
Li, Y. (VP13-13) 156
Li, Y. (VP14-01) 156
Li, Y. (VP14-08) 157
Li, Y. (VP14-09) 158
Li, Y. (VP14-10) 158
Li, Y. (VP14-12) 158
Li, Y. (VP14-14) 158
Li, Y. (VP14-15) 158
Li, Y. (VP14-16) 158
Li, Y. (VP15-11) 160
Li, Y. (VP15-15) 161
Li, Y. (VP15-17) 161
Li, Z. (BE-12) 31
Li, Z. (DP-08) 78
Li, Z. (EQ-06) 100
Li, Z. (VP1-02) 130
Li, Z. (VP3-15) 135
Li, Z. (VP5-10) 139
Li, Z. (VP10-29) 149
Li, Z. (VP11-02) 150
Li, Z. (VP14-01) 156
Li, Z. (VP14-10) 158
Li, Z. (VP14-12) 158
Li, Z. (VP14-16) 158
Lianeris, M. (EG-11) 98
Liang, G. (FF-05) 113
Liang, S. (VP4-02) 135
Liang, S. (VP13-08) 155
Liang, X. (VP3-11) 134
Liang, X. (VP10-21) 148
Liang, Y. (VP3-14) 134
Liang, Z. (VP10-30) 149
Liang, Z. (VP10-31) 149
Liang, Z. (VP15-19) 161
Liao, C. (VP3-03) 133
Liao, J.C. (EP-04) 99
Liao, P. (VP5-01) 138
Liao, W. (VP7-06) 142
Liao, Y. (AD-03) 7
Liao, Y. (AD-11) 8
Lim, M. (BS-11) 41
Lim, M. (DP-09) 78
Lim, M. (VP3-13) 134
Lim, M. (VP10-05) 146
Lim, M. (VP12-09) 152
Lim, M. (VP12-10) 153
Lima Jr., E. (DD-01) 68
Lima, E.M. (BA-01) 22
Lima, E.N. (CP-06) 57
Lima, J. (CS-06) 62
Lima, S.X. (ES-02) 102
Lin, C. (VP7-06) 142
Lin, H. (EB-05) 86
Lin, H. (VP5-04) 138
Lin, J. (EF-12) 95
Lin, Q. (VP12-19) 154
Lin, Q. (VP12-20) 154
Lin, S. (FC-05) 108
Lin, X. (VP10-20) 148
Lin, X.L. (AC-08) 5
Lin, X.L. (FD-09) 110
Lin, Y. (AD-06) 8
Lin, Y. (CC-02) 46
Lin, Y. (CG-09) 56
Lin, Z. (CP-02) 57
Lindner, J. (BB-02) 24
Lindner, J. (GG-05) 129
Lindner, M. (EG-09) 97
Lino dos Santos, C.A. (DE-09) 72
Lisik, J. (GD-03) 122
Litzius, K. (FB-09) 107
Liu, A. (VP10-03) 146
Liu, B. (VP10-29) 149
Liu, C. (BD-05) 29
Liu, C. (VP3-10) 134
Liu, C. (VP5-03) 138
Liu, C. (VP8-01) 143
Liu, C. (VP10-08) 147
Liu, C. (VP11-06) 150
Liu, C. (VP11-11) 151
Liu, F. (VP6-07) 140
Liu, H. (ER-01) 101
Liu, H. (VP11-03) 150
Liu, H. (VP15-07) 160
Liu, J. (FG-03) 115

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Liu, K. (AR-10) 20
Liu, K. (CE-08) 50
Liu, L. (VP2-04) 133
Liu, L. (VP7-16) 143
Liu, L. (VP15-10) 160
Liu, P. (DE-01) 70
Liu, Q. (DQ-10) 79
Liu, R. (VP1-15) 132
Liu, S. (DD-06) 69
Liu, S. (ER-04) 101
Liu, S. (FF-03) 113
Liu, S. (VP11-08) 151
Liu, T. (VP12-02) 151
Liu, W. (FF-03) 113
Liu, W. (VP2-01) 132
Liu, W. (VP10-27) 149
Liu, W. (VP11-07) 150
Liu, W. (VP11-09) 151
Liu, W. (VP12-04) 152
Liu, X. (AS-11) 22
Liu, X. (VP7-05) 141
Liu, X. (VP8-04) 144
Liu, X. (VP9-07) 145
Liu, X. (VP12-13) 153
Liu, X. (VP15-11) 160
Liu, Y. (EC-06) 88
Liu, Y. (FF-01) 112
Liu, Y. (VP3-11) 134
Liu, Y. (VP10-12) 147
Liu, Y. (VP10-21) 148
Liu, Y. (VP11-06) 150
Liu, Y. (VP11-07) 150
Liu, Y. (VP11-09) 151
Liu, Y. (VP12-20) 154
Llauradó-Capdevila, G. (FC-08) . . . 108
Lo Giudice, A. (VP7-17) 143
Locatelli, A. (GD-02) 122
Löfstrand, J. (DR-03) 80
Lohr, W. (ED-06) 91
Lohr, W. (EP-01) 98
Loiseau, A. (CG-04) 55
Loiseau, A. (CP-12) 58
Lombardi, A. (BE-12) 31
Lomonova, E. (CE-05) 50
Lomonova, E. (FE-08) 112
Long, B. (VP10-32) 149
Long, B. (VP12-15) 153
Long, F. (GG-05) 129
Long, J. (FF-02) 113
Lopes, A. (BR-16) 40
Lopes, A. (DF-01) 73
Lopes, L.U. (DE-06) 71
Lopez Pedroso, A. (AQ-16) 18
Lopez-Diaz, L. (FD-08) 110
Lopez-Dominguez, V. (AD-04) 7
López, A. (AC-02) 4
Lora-Serrano, R. (BF-05) 32
Lorenzoni, A. (FG-08) 116
Lostun, M. (ES-10) 103
Lotsch, B. (CP-02) 57
Lotsch, B. (DG-02) 75
Lotsch, B. (FB-09) 107
Loughran, T.H. (EG-04) 96
Low, W. (BA-04) 23
Lozano, J.A. (FG-06) 116
Lozano, J.A. (FG-07) 116
Lozano, J.A. (FG-08) 116
Lu, H. (VP5-01) 138
Lu, J. (CP-11) 58
Lu, J. (VP12-21) 154
Lu, M. (VP11-02) 150
Lu, P. (AD-03) 7
Lu, P. (AD-11) 8
Lu, S. (BQ-01) 36
Lu, S. (ER-01) 101
Lu, X. (VP2-03) 132
Lu, X. (VP12-08) 152
Lu, Y. (AC-05) 5
Lu, Y. (DC-06) 68
Luca, S. (DE-04) 71
Luciano, F. (BF-03)* 32
Luedke, J. (DF-09) 74
Luk'yanchuk, I. (CA-04) 43
Lukoyanov, A. (VP9-05) 145
Lukoyanov, A.V. (VP9-03) 145
Luna, C. (BC-08) 27
Lunde, V.G. (DR-01) 80
Lungareze Neto, M. (FE-03) 111
Luo, B. (EC-06) 88
Luo, D. (VP9-06) 145
Luo, D. (VP13-10) 156
Luo, K. (AD-03) 7
Luo, K. (AD-11) 8
Luo, S. (AD-05) 7
Luo, S. (BQ-01) 36
Lupu, N. (CS-01) 62
Lupu, N. (DS-10) 83
Lupu, N. (EP-07) 99
Lupu, N. (ES-10) 103
Lupu, N. (VP7-03) 141
Lurgo, F. (CS-05) 62
Lutzi, M. (VP4-01) 135
Luza-Mamani, L. (ES-03) 102
Luzón, J. (EC-10) 89
Lv, C. (FD-09) 110
Lv, H. (DG-06) 76
Lyu, D. (AC-10) 6
Lyubchanskii, I. (BB-07) 25

- M -

M, C.S. (VP4-16) 137
M. A. García, D. (BR-09) 39
M. H. de Andrade, A. (AQ-02) 16
M. H. de Andrade, A. (BQ-07) 37
M. H. de Andrade, A. (GG-06) 129
M. S. Gomes, A. (BR-09) 39
Ma, D. (VP14-11) 158
Ma, D. (VP14-13) 158
Ma, J. (VP3-09) 134
Ma, J. (VP3-12) 134
Ma, J. (VP3-14) 134
Ma, S. (VP10-04) 146
Ma, S. (VP15-12) 160
Ma, S. (VP15-13) 161
Ma, T. (AR-04) 19
Ma, Y. (VP7-04) 141
Ma, Y. (VP7-15) 142
Maalouf, A. (GC-03) 121
Maccari, F. (DE-02) 71
Maccari, F. (FG-06) 116
Macedo, R. (GA-02) 117
Macedo, W.A. (AQ-10) 17
Macedo, W.C. (DE-09) 72
Macedo, W.C. (ES-04) 103
Macedo, W.C. (ES-05) 103
Macedo, W.C. (ES-12) 103
Machado, A.P. (CP-09) 58
Machado, N.R. (EG-06) 97
Machal, N. (BC-10) 27
Maciusowicz, M. (AS-07) 21
Madami, M. (CB-07) 44
Madami, M. (GB-07) 119
Madhavan, A. (AA-03) 1
Magadeev, E.B. (DQ-13) 80
Magalhães-Paniago, R. (AQ-08) 17
Magalhães, S. (DR-12) 82
Magaz, M. (GF-05) 127
Magni, A. (BF-04) 32
Magni, A. (GB-07) 119
Magnier, L. (DE-04) 71
Mah, W. (CC-01) 45
Mahato, P.C. (AE-02) 9
Maheshwari, M. (GG-09) 130

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Mahfouzi, F. (AD-04) 7
Mahfouzi, F. (CA-05) 43
Mahmoudi, A. (DC-04) 67
Maicas, M.C. (FD-08) 110
Maior, D.S. (CR-04) 61
Majcen, F. (DB-06) 66
Majetich, S. (BA-06) 23
Majetich, S. (CC-10) 47
Maji, S. (ER-03) 101
Major, M. (EE-04) 92
Makarov, D. (GA-05) 118
Makarov, D. (VP6-09) 140
Mal, S. (AE-02) 9
Maleski de Sá, N. (FG-08) 116
Maletinsky, P. (AD-08) 8
Maletinsky, P. (DG-02) 75
Mallick, S. (CA-02) 42
Mallick, S. (CD-06) 48
Mamykin, S. (AS-11) 22
Man, J. (FC-04) 108
Manchon, A. (AC-04) 4
Manchon, A. (CD-08) 49
Mandal, K. (GC-08) 121
Mandal, P. (AB-02) 2
Mandru, A. (EB-02) 85
Mandru, A. (EC-01) 87
Mangiorou, E. (DR-08) 81
Manneschi, L. (AA-01) 1
Mantri, S.A. (CS-16) 64
Mao, X. (VP15-04) 159
Mao, X. (VP15-05) 159
Mao, X. (VP15-06) 160
Mao, Y. (VP1-13) 132
Marcand, T.A. (EQ-14) 100
Marcano, N. (DR-12) 82
Marciel Döring, A. (FG-08) 116
Marcin, J. (GF-01) 126
Marciniak, J. (GG-08) 130
Marciniak, W. (GG-08) 130
Marinova, I. (VP4-19) 138
Marques de Lima, J. (BQ-05) 37
Marques de Souza
Neto, N. (CR-03) 61
Marques, J.L. (BA-03) 23
Marroquin, J. (DG-03) 75
Marrows, C. (GB-07) 119
Martín-Rubio, C. (EG-08) 97
Martin, F. (EQ-03) 100
Martin, M. (CG-04) 55
Martin, M. (CP-10) 58
Martin, M. (CP-12) 58
Martin, S. (EA-05) 84
Martinez-Garcia, J.C. (BA-03) 23
Martinez, B. (CP-10) 58
Martínez, J. (AB-09) 4
Martins, E. (EC-05) 88
Martins, L. (BP-08) 36
Martins, L. (FD-05) 110
Martins, M. (ES-06) 103
Martins, M.D. (AP-06) 15
Martins, M.G. (AS-06) 21
Martins, P. (CG-06) 55
Marty, A. (BP-01) 35
Marty, A. (CD-08) 49
Marty, A. (CG-08) 55
Maruyama, I. (FC-09) 108
Mary, N. (VP4-03) 136
Mascheroni, A. (ES-06) 103
Mascheroni, J.M. (ES-06) 103
Mashiko, A. (GC-05) 121
Masood, K. (DF-02) 73
Maspero, F. (CB-07) 44
Maspero, F. (DB-07) 66
Massabeau, S. (FF-08) 114
Massabeau, S. (GD-07) 123
Massana Roquero, D. (EP-04) 99
Masuzawa, K. (AP-09) 15
Mateev, V. (VP4-19) 138
Matinaga, F.M. (AP-06) 15
Matos, L.C. (VP14-03) 157
Matos, L.C. (VP14-17) 159
Matsuda, Y. (ES-01) 102
Matsuki, H. (VP15-09) 160
Matsuki, H. (VP15-14) 161
Matsuo, T. (DG-01) 75
Mattei, J. (DS-01) 82
Mattei, J. (GC-03) 121
Mattevi, C. (CP-12) 58
Mayr, S. (BB-02) 24
Maze, J. (BQ-06) 37
Mazza, L. (CC-06) 46
McCloy, J. (AS-05) 21
McCluskey, M. (AS-05) 21
McCord, J. (BF-01) 31
McCord, J. (DS-06) 83
McCord, J. (EB-07) 86
McDonough, C. (DD-05) 69
Mckinnon, T. (GD-03) 122
Medapalli, R. (CF-02) 52
Medina Dueñas, J.E. (BG-10) 35
Meireles, L.M. (AR-01) 19
Meireles, L.M. (AR-02) 19
Meixner, J. (GG-08) 130
Mellado, P. (AB-01) 2
Mello, T.H. (DS-02) 82
Mello, T.H. (VP13-02) 154
Melo da Luz, G. (FG-08) 116
Memarzadeh, S. (CF-01) 51
Mendanha, S. (BA-01) 22
Mendes, J.B. (AG-08) 14
Mendes, J.B. (AQ-08) 17
Mendes, J.B. (CP-06) 57
Mendes, J.B. (CQ-11) 60
Mendez, M. (GB-06) 119
Mendonça, A. (BR-14) 39
Mendonça, A.A. (FG-04) 115
Mendonça, G.A. (CS-14) 63
Mendonça, G.A. (VP14-17) 159
Mendonca, H.A. (CD-05) 48
Mendonsa, R.A. (VP4-02) 135
Mendonsa, R.A. (VP13-08) 155
Meneses, F. (FB-06) 106
Meng, F. (VP1-09) 131
Meng, G. (VP5-06) 139
Meng, W. (VP14-14) 158
Mentes, T.O. (GD-02) 122
Mentink, J. (CC-07) 47
Meo, A. (EG-11) 98
Merino, I.C. (BR-05) 38
Merkulov, A. (CS-04) 62
Mérot, J. (CP-12) 58
Mery, M. (AQ-06) 17
Mesa, F. (CQ-05) 59
Mesquita, F. (BQ-07) 37
Mesquita, F. (DR-12) 82
Messal, O. (EQ-02) 99
Messing, M.E. (BC-06) 27
Meuller, B.O. (BC-06) 27
Meyners, D. (BF-01) 31
Mezani, S. (EQ-14) 100
Mi, W. (VP10-10) 147
Mi, W. (VP12-12) 153
Michalicka, J. (CB-09) 45
Michea, S. (GG-04) 129
Michez, L. (GD-08) 124
Mičica, M. (BD-07) 29
Migliorini, A. (BP-05) 35
Mikno, Z. (AR-03) 19
Milano, J. (BF-09) 33
Milano, J. (CQ-06) 59
Milla Robles, T.W. (DQ-04) 79
Millalonco, Y. (FE-05) 112
Miller, J. (AD-01) 6
Milosevic, M. (CB-03) 44

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Mimica-Figari, B. (CA-01) 42
Minami, R. (GG-07) 129
Minuti, A. (EP-07) 99
Mion, T.R. (GB-04) 119
Mishra, P.K. (ER-09) 102
Misra, S. (CC-05) 46
Mitsumata, C. (AP-01) 14
Mitsumata, C. (AP-09) 15
Mitsumata, C. (AP-11) 16
Miwa, S. (DG-01) 75
Miwa, S. (GD-04) 123
Miyahara, S. (FC-09) 108
Miyahara, S. (VP15-09) 160
Miyahara, S. (VP15-14) 161
Miyamachi, T. (FG-11) 117
Miyashita, H. (AF-03) 11
Miyashita, H. (DB-04) 66
Miyazaki, T. (VP14-02) 157
Miyazaki, T. (VP14-04) 157
Miyazawa, Y. (GC-10) 122
Mizuguchi, M. (FG-11) 117
Mo, L. (AR-05) 19
Mo, S. (GB-09) 120
Moalic, M. (AG-03) 13
Moalic, M. (DB-05) 66
Möckli, D. (DR-12) 82
Mogniotte, J. (VP4-03) 136
Mohamad-Assaad, M. (VP6-09) . . . 140
Mohammed, O.A. (GE-11) 126
Mojsiejuk, J. (BG-05) 34
Mokrousov, Y. (EA-05) 84
Molina-Luna, L. (DR-03) 80
Molina-Luna, L. (ED-05) 90
Molina-Luna, L. (VP4-01) 135
Møller, A. (DR-01) 80
Moltó González, S. (GA-03) 117
Mondal, A. (CR-01) 61
Mondal, R. (AE-02) 9
Mondal, S. (AB-02) 2
Mongshi, A. (VP4-03) 136
Moodera, J.S. (AQ-07) 17
Mor, V. (EB-10) 87
Moradi, F. (CC-04) 46
Morais, P.C. (BR-05) 38
Morales Torres, M. (CS-06) 62
Morales Torres, M. (VP4-17) 137
Morales, M.d. (AB-07) 3
Morales, R. (BC-03) 26
Morales, R. (ED-02) 90
Morán, O. (VP9-09) 146
Morassi, M. (FF-08) 114
Morel, R. (DD-03) 69
Morel, R. (ED-01) 89
Moreno Maldonado, A.C. (DD-01) . . . 68
Mori, K. (AF-03) 11
Mori, K. (DB-04) 66
Mori, T.J. (AQ-07) 17
Mori, T.J. (BF-05) 32
Mori, T.J. (DQ-05) 79
Mori, T.J. (DQ-11) 80
Morris, R. (CS-04) 62
Mosca, D.H. (AE-03) 9
Mosca, D.H. (AP-06) 15
Moscoso Londoño, O. (BR-15) 40
Moscoso Londoño, O. (DP-05) 77
Moser, S. (GD-06) 123
Mostarac, D. (AB-11) 4
Mota, M. (AR-01) 19
Mougin, A. (CA-02) 42
Moura, L. (AQ-08) 17
Moureaux, A. (AE-07) 10
Moureaux, A. (CC-09) 47
Moureaux, A. (CF-08) 53
Moussy, J. (AC-05) 5
Moustafa, H.A. (CF-11) 53
Moutafis, C. (BP-07) 35
Moutafis, C. (DQ-03) 79
Moya, C. (AB-07) 3
Muench, F. (GB-06) 119
Muhammad, H. (VP8-06) 144
Mukhachev, R.D. (VP9-05) 145
Mulkers, J. (CB-03) 44
Muñana-González, S. (BR-16) 40
Muniz Meireles, L. (VP14-17) 159
Munsch, M. (AD-08) 8
Muraca, D. (BQ-09) 37
Muraca, D. (BR-10) 39
Muraca, D. (BR-11) 39
Muraca, D. (BR-12) 39
Muraca, D. (CR-08) 61
Muralidhar, S. (FB-04) 106
Muralidharan, B. (CC-08) 47
Muramatsu, K. (VP10-07) 147
Murayama, A. (CQ-01) 59
Murayama, T. (EP-05) 99
Myrtle, S. (GD-03) 122

- N -

N'Diaye, A.T. (EE-04) 92
Nadal, M.S. (DD-01) 68
Nagai, K. (VP2-02) 132
Naganuma, H. (VP6-08) 140
Nagaoka, R. (AP-09) 15
Nagaoka, R. (AP-11) 16
Naik, V.B. (CC-01) 45
Najafabadi, D.H. (CB-05) 44
Najma, S. (ED-05) 90
Nakagawa, K. (BA-02) 22
Nakajima, K. (FC-03) 107
Nakajima, S.L. (DD-08) 70
Nakamura, K. (BE-06) 30
Nakamura, K. (CE-12) 51
Nakamura, K. (FE-02) 111
Nakamura, T. (GC-10) 122
Nakamura, Y. (AD-10) 8
Nakamura, Y. (VP7-11) 142
Nakano, M. (VP2-02) 132
Nakastsuji, S. (BD-08) 29
Nakastsuji, S. (DG-01) 75
Nakastsuji, S. (GD-04) 123
Nakatani, T. (GA-04) 117
Nakatsuji, S. (FD-01) 109
Nallan, S. (AC-03) 5
Nam, D. (BS-06) 41
Nan, T. (BG-05) 34
Nara, T. (VP13-01) 154
Narducci, D. (BF-06) 32
Narkowicz, R. (BB-02) 24
Nartu, M. (CS-16) 64
Nascimento, M. (AS-06) 21
Nascimento, V. (AQ-13) 18
Nascimento, V. (CQ-08) 60
Nasser, H.N. (BE-05) 30
Nasser, H.N. (CE-03) 49
Nassif, V. (DR-03) 80
Natan Alves Ferreira, H. (AF-09) 12
Natour, G. (CE-07) 50
Navarro Vilca, S.R. (AP-02) 15
Navarro, E. (GG-02) 128
Navas, D. (AQ-15) 18
Nayak, B. (VP6-04) 139
Nayak, N. (VP4-09) 136
Neckel, I.T. (AE-03) 9
Nembach, H. (GB-07) 119
Neto, A.S. (VP14-17) 159
Neto, D. (FG-09) 116
Neto, J.B. (DE-06) 71
Neto, J.F. (BG-04) 34
Netoff, T. (BA-04) 23
Neu, V. (DS-08) 83
Neves, E.F. (DE-06) 71
Ney, A. (BB-02) 24
Ng, E. (EF-12) 95

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Nguyen, H. (VP7-01) 141
Nguyen, M. (VP14-02) 157
Nguyen, M. (VP14-04) 157
Nguyen, T. (VP6-08) 140
Nguyen, T. (VP7-01) 141
Nguyen, T.A. (BP-10) 36
Nguyen, V. (AD-02) 7
Nguyen, V. (FD-07) 110
Nhalil, H. (EB-10) 87
Ni, S. (BE-10) 31
Nicolas, A. (DD-03) 69
Nicolas, A. (ED-01) 89
Nicolis, S. (AE-10) 10
Nijman, L. (DC-05) 68
Nikitov, S. (AS-13) 22
Nikitov, S. (CR-05) 61
Nisar, A. (CC-01) 45
Nishikawa, M. (VP7-11) 142
Nishio-Hamane, D. (DG-01) 75
Nishio-Hamane, D. (GD-04) 123
Noda, Y. (DD-08) 70
Noé, P. (CD-08) 49
Noël, P. (ER-05) 101
Nogueira, F. (CF-03) 52
Noh, S. (VP7-13) 142
Noh, S. (VP8-06) 144
Nomoto, T. (DG-01) 75
Nomoto, T. (GD-04) 123
Nomura, A. (VP4-14) 137
Nordström, L. (ER-07) 101
Noujima, M. (EF-09) 95
Noujima, M. (EF-10) 95
Nowak, U. (CP-02) 57
Nowak, U. (GD-09) 124
Nugumanov, A. (DQ-09) 79
Nunes, M.S. (CS-06) 62
Nuñez, A. (CB-04) 44
Nunez, J. (AQ-06) 17
Nunez, J.P. (AB-05) 3
Nunez, J.P. (DR-09) 81
Nunn, Z.R. (GD-03) 122
Nussle, T. (AE-10) 10

- O -

O'Brien, J. (BD-05) 29
Obayashi, I. (AP-09) 15
Obayashi, I. (AP-11) 16
Obeid, P. (ED-01) 89
Och, M. (CP-12) 58
Oezelt, H. (CF-11) 53
Ogasawara, T. (AP-11) 16
Ogawa, D. (AD-09) 8
Ogawa, T. (AF-02) 11
Ogrin, F. (VP13-04) 155
Oh, J. (EA-01) 84
Oh, Y. (BA-04) 23
Oh, Y. (VP8-08) 144
Ohashi, S. (CE-06) 50
Ohinata, T. (CE-12) 51
Ohtani, T. (DS-05) 82
Ojha, D.K. (CC-02) 46
Ok, H. (AP-03) 15
Ok, H. (VP6-10) 140
Okada, S. (DE-08) 72
Okamoto, S. (VP14-02) 157
Okamoto, S. (VP14-04) 157
Okamoto, Y. (VP7-11) 142
Okazaki, A. (FE-02) 111
Okita, K. (EP-05) 99
Okita, K. (GC-05) 121
Oliveira Junior, J.R. (AR-01) 19
Oliveira Junior, J.R. (CS-09) 63
Oliveira, I.S. (AS-06) 21
Oliveira, I.S. (EC-05) 88
Oliveira, L.M. (AS-08) 21
Oliveira, N.C. (BA-01) 22
Oliveira, P. (AS-02) 21
Oliveros-Mata, E. (GA-05) 118
Oliveros-Mata, E. (VP6-09) 140
Ollefs, K. (DR-03) 80
Ollefs, K. (EE-04) 92
Ollefs, K. (FG-05) 115
Omori, T. (VP4-07) 136
Onderko, F. (EF-06) 95
Oogane, M. (CF-04) 52
Oogane, M. (DS-09) 83
Orlandini Keller, F. (DE-04) 71
Orue, I. (DD-01) 68
Orue, I. (ED-05) 90
Osana, F. (BP-01) 35
Osana, F. (CD-08) 49
Osborn, J. (BA-04) 23
Oshima, D. (CQ-14) 60
Oshima, D. (EB-03) 85
Oshima, D. (VP4-10) 136
Otani, Y. (GD-04) 123
Otsuka, K. (BS-10) 41
Ott, F. (FB-08) 107
Ouazib, A. (EF-08) 95
Ourdani, D. (BG-01) 34
Ouyang, G. (EF-07) 96
Ovari, T.A. (CS-01) 62
Ovari, T.A. (DS-10) 83
Oyarzún, S. (CG-08) 55
Oyarzún, S. (CQ-10) 60
Oyarzún, S. (CQ-13) 60
Oysel Mestre, A. (CD-08) 49
Ozório, M. (AS-03) 21

- P -

P. Filho, M.L. (EC-02) 87
Pabst, U. (CE-07) 50
Paesano Jr, A. (VP4-17) 137
Paesano Jr., A. (CS-06) 62
Pagliuso, P. (CP-09) 58
Pai, C. (VP7-06) 142
Paixão, M.W. (DF-11) 74
Paksoy, A. (ES-07) 103
Pakuszewski, K.R. (CP-09) 58
Pal, A. (AB-02) 2
Pal, B. (AB-02) 2
Pal, R. (AB-02)*^ 2
Palakkal, J. (EE-04) 92
Palasyuk, A. (EE-01) 92
Palhares, L.S. (AQ-14) 18
Palhares, L.S. (GD-10) 124
Palma, J.L. (CQ-13) 60
Palma, J.L. (GG-04) 129
Palomares, F. (GF-05) 127
Palomino Lopez, A. (FD-07) 110
Pan, C. (EE-06) 93
Pan, D. (CQ-14) 60
Pan, W. (DR-11) 82
Pan, W. (VP15-04) 159
Pan, W. (VP15-05) 159
Pan, Y. (VP3-12) 134
Pan, Y. (VP10-22) 148
Pan, Z. (VP10-16) 148
Panagopoulos, C. (DA-06) 65
Pandey, R.R. (CD-05) 48
Pané, S. (FC-07) 108
Pané, S. (FC-08) 108
Pang, D. (VP1-14) 132
Panigraphy, S. (CA-02) 42
Panwar, R. (VP13-11) 156
Papp, A. (CB-07) 44
Parise, M.S. (BR-05) 38
Park, B. (VP7-13) 142
Park, C. (DP-10) 78
Park, C. (VP7-13) 142
Park, D. (DP-09) 78
Park, D. (VP3-13) 134

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Park, D. (VP12-10) 153
Park, I. (EQ-07) 100
Park, I. (EQ-08) 100
Park, J. (AR-06) 19
Park, J. (DP-09) 78
Park, J. (VP4-06) 136
Park, J. (VP8-06) 144
Park, J. (VP12-07) 152
Park, K. (DE-08) 72
Park, K. (ES-08) 103
Park, S. (ED-08) 91
Park, S. (VP12-09) 152
Parker, D. (EE-01) 92
Parkin, S. (BP-05) 35
Parkin, S. (CP-01) 56
Parkin, S. (FF-09) 114
Paschoa, A. (CQ-08) 60
Pasquale, M. (DF-09) 74
Pasquale, M. (EF-04) 94
Passamani, E.C. (CQ-08) 60
Pastrián, F. (DE-09) 72
Patel, A. (DQ-08) 79
Patel, A.K. (VP4-16) 137
Patel, A.K. (VP4-18) 137
Patel, S.K. (CF-02) 52
Paterson, J. (CD-08) 49
Pathak, R. (EE-10) 93
Pathak, S. (AE-09) 10
Pathak, S.A. (AE-11) 11
Patriarche, G. (FF-08) 114
Pattabi, A. (BD-03) 28
Patwari, M. (VP4-16) 137
Paulides, J.J. (BE-05) 30
Paulides, J.J. (DC-05) 68
Pavelka, D. (BB-08) 25
Pavelka, D. (CB-09) 45
Pavlidis, V. (BP-07) 35
Paz, E. (CF-06) 53
Paz, E. (EB-06) 86
Paz, E. (EB-09) 87
Paz, E. (FD-05) 110
Pearton, S. (AS-05) 21
Pedrós, J. (FD-08) 110
Pei, R. (VP2-03) 132
Pei, R. (VP12-08) 152
Pei, R. (VP14-09) 158
Pei, R. (VP14-10) 158
Pei, R. (VP14-11) 158
Pei, R. (VP14-12) 158
Pei, R. (VP14-13) 158
Pei, R. (VP14-15) 158
Pei, R. (VP14-16) 158
Peiro, J. (CG-04) 55
Peiro, J. (CP-10) 58
Peiro, J. (CP-12) 58
Pelegrini, F. (AQ-13) 18
Pelegrini, F. (BR-05) 38
Pellet-Mary, C. (DG-02) 75
Peng, K. (AE-08) 10
Peng, K. (EB-05) 86
Perconte, D. (CG-04) 55
Perconte, D. (CP-10) 58
Pereira de Abreu, T. (VP14-17) 159
Pereira de Lima, N. (BQ-10) 38
Pereira, A. (GG-04) 129
Pereira, G. (AS-07) 21
Pereira, J.P. (CS-03) 62
Pereira, L.F. (AS-03) 21
Pereira, L.F. (BQ-10) 38
Peremadathil Pradeep, R. (EB-02) . . . 85
Peremadathil-Pradeep, R. (EC-01) . . . 87
Peressoni Vieira, B. (FG-08) 116
Peretti, L. (VP10-29) 149
Perez Martinez, A.A. (BF-09) 33
Pérez Martínez, Á.A. (CQ-06) 59
Perez Prado, M. (GF-10) 128
Pérez-Álvarez, L. (BR-16) 40
Pérez, D. (DR-07) 81
Perna, S. (EG-02) 96
Perov, N.S. (GF-08) 127
Pessoa, M. (AQ-13) 18
Pessoa, M. (BR-05) 38
Peter, S.D. (AB-08) 3
Peterson, T. (AC-10) 6
Petit-Watelot, S. (AC-06) 5
Petit-Watelot, S. (CG-02) 54
Petit-Watelot, S. (CG-07) 55
Petrilli, H.M. (AG-02) 13
Petrilli, H.M. (DQ-01) 78
Petroff, F. (CG-04) 55
Petroff, F. (CP-10) 58
Petry Homrich, R. (DP-03) 77
Petry Homrich, R. (DP-04) 77
Petryshynets, I. (EF-06) 95
Pezeshki, H. (BD-01) 28
Pezzoli, F. (CQ-10) 60
Pfeuffer, L. (VP9-01) 144
Pfister, P. (VP10-01) 146
Pfnuer, K. (DF-09) 74
Phan, N. (AA-03) 1
Phan, N. (BP-08) 36
Phatak, C. (AD-04) 7
Phillips, N.W. (BF-07) 33
Piamonteze, C. (BF-09) 33
Piao, H. (DQ-10) 79
Pilati, V. (BA-03) 23
Pile, S. (AB-08) 3
Pile, S. (BB-02) 24
Pinto, F. (BQ-06) 37
Pinto, R.A. (BR-01) 38
Piramanayagam, S. (CC-01) 45
Piraux, L. (BC-10) 27
Pires, M.J. (CS-03) 62
Pirota, K.R. (BF-10) 33
Pirota, K.R. (BQ-04) 37
Pirota, K.R. (BR-12) 39
Pirro, P. (CB-07) 44
Pirro, P. (CF-05) 52
Pirro, P. (DB-07) 66
Pirro, P. (DB-08) 66
Piva, M. (CP-09) 58
Pizo, G.A. (AS-16) 22
Pizo, G.A. (VP13-06) 155
Pizzini, S. (BG-01) 34
Plazaola, F. (DD-01) 68
Plazaola, F. (ED-05) 90
Plokhov, D. (DE-07) 72
Plotnikov, V. (VP14-05) 157
Pokhrel, K. (DG-08) 76
Politov, R. (VP4-04) 136
Polley, D. (BD-03) 28
Polojärvi, V. (CQ-01) 59
Pomyalov, A. (BB-04) 24
Ponick, B. (BE-07) 30
Pospíšil, J. (DG-08) 76
Pot, C. (AD-01) 6
Powalla, L. (FB-09) 107
Pradhan, G. (BF-04) 32
Pradhan, S. (BF-08) 33
Prasad, N. (AA-03) 1
Prellier, W. (BF-08) 33
Prenat, G. (BP-01) 35
Prenat, G. (CD-08) 49
Pribylov, A. (VP4-04) 136
Pribytova, E. (CB-09) 45
Prida, V.M. (BC-08) 27
Prida, V.M. (GB-06) 119
Prieto R., L.F. (CQ-05) 59
Prieto, J. (FD-08) 110
Primetzhofer, D. (DR-03) 80
Prügl, K. (EB-02) 85
Psuj, G. (AS-07) 21
Puigmartí-Luis, J. (FC-08) 108
Pujada Bermudez, B.R. (CR-07) 61

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Puliafito, V. (CC-06) 46
Puliafito, V. (GB-07) 119
Pureur, P. (BQ-07) 37
Pureur, P. (DR-12) 82
Puthirath Balan, A. (CP-02) 57
Puthirath Balan, A. (DG-02) 75
Pylypovskyi, O. (VP6-09) 140
Pyo, H. (BS-12) 42

- Q -

Qi, J. (AC-10) 6
Qi, R. (FB-06) 106
Qian, H. (VP1-01) 130
Qiang, B. (FG-11) 117
Qiao, Y. (FF-05) 113
Qin, H. (FA-04) 105
Qin, Y. (VP14-10) 158
Qin, Y. (VP14-16) 158
Qiu, J. (VP15-15) 161
Qiu, R. (FF-02) 113
Qiu, W. (DD-06) 69
Qu, G. (VP11-07) 150
Qu, G. (VP11-09) 151
Quan, L. (VP1-04) 131
Quan, L. (VP1-13) 132
Quan, L. (VP12-01) 151
Quan, L. (VP12-02) 151
Quandt, E. (BF-01) 31
Quintana, M. (VP6-09) 140
Quiroz, H.P. (AQ-04) 17
Quiroz, H.P. (BP-03) 35
Quiroz, H.P. (CQ-05) 35
Quispe-Marcatoma, J. (AP-10) 15
Quispe, L. (ES-03) 102
Quispe, L. (ES-12) 103
Quispe, L.T. (DE-06) 71

- R -

Raab, K. (CC-07) 47
Raab, K. (GD-09) 124
Raabe, J. (BF-07) 33
Raboni Ferreira, M. (CR-03) 61
Radeck, D. (FE-01) 111
Radha, B. (FB-06) 106
Radhakrishnan, P. (CG-11) 56
Rado, C. (DE-04) 71
Radon, P. (AB-06) 3
Radulov, I. (ES-07) 103
Rafin, S. (GE-11) 126
Rafin, S. (VP1-15) 132
Rahaman, H. (CC-01) 45
Raimondo, E. (CC-06) 46
Raj, R. (FC-10) 109
Rajeevan, V. (VP14-18) 159
Rakhmatullaev, T. (VP14-05) 157
Rakholiya, B.B. (FB-08) 107
Ralchev, M. (VP4-19) 138
Ramanujan, R. (CS-16) 64
Ramirez, G. (BF-09) 33
Ramírez, G. (FE-05) 112
Ramirez, J.G. (BQ-09) 37
Ramsteiner, M. (DG-06) 76
Ramu, M. (CC-01) 45
Rana, B. (AG-03) 13
Ranchal, R. (EG-08) 97
Ranjbar, S. (AC-09) 6
Ranno, L. (BG-01) 34
Rao, M.R. (BF-08) 33
Rao, M.R. (FC-10) 109
Rao, S. (AC-09) 6
Rao, S. (FD-07) 110
Rao, Y. (DB-08) 66
Rappoport, T.G. (EA-06) 85
Rasly, M. (GA-04) 117
Rastogi, A. (BD-03) 28
Ravi, S. (VP4-08) 136
Ravi, S. (VP4-09) 136
Ravi, S. (VP14-07) 157
Razumnaya, A. (CA-04) 43
Rebello, A.C. (EC-05) 88
Rebelo, Q.H. (ES-02) 102
Redondo, C. (BC-03) 26
Redondo, C. (ED-02) 90
Redwing, J.M. (DG-06) 76
Rehm, L. (CC-05) 46
Reichlova, H. (GD-06) 123
Reichlova, H. (GD-08) 124
Reif, D.D. (FG-06) 116
Reimann, T. (EG-09) 97
Reiser, P. (DG-02) 75
Ren, J. (VP1-04) 131
Ren, L. (VP7-16) 143
Ren, Y. (VP15-01) 159
Rengifo, M. (CG-02) 54
Rens, J. (EF-03) 94
Requejo, A.Y. (CR-07) 61
Resende, Ú.C. (DS-02) 82
Resende, Ú.C. (VP13-02) 154
Resende, Ú.C. (VP13-12) 156
Resende, Ú.C. (VP15-08) 160
Reyren, N. (AC-05) 5
Reyren, N. (FF-08) 114
Rezaeiyan, Y. (CC-04) 46
Rezende, S.M. (BQ-05) 37
Rezende, S.M. (CG-10) 56
Rezende, S.M. (CP-06) 57
Rezende, S.M. (CR-04) 61
Rho, S. (EQ-08) 100
Rial, J. (GD-08) 124
Rianto, D. (CS-04) 62
Ribeiro-Junior, I.S. (AS-03) 21
Ribeiro, P.R. (BQ-04) 37
Rice, J. (AE-05) 10
Rickhaus, P. (AD-08) 8
Rieger, R. (EB-07) 86
Rigaut, W. (CF-11) 53
Rigue, J.N. (CQ-09) 60
Riney, L. (AS-11) 22
Riordan, E. (BA-06) 23
Riso Barbosa Jr., J. (FG-06) 116
Riso Barbosa Jr., J. (FG-07) 116
Riso Barbosa Jr., J. (FG-08) 116
Rivas Rojas, P.C. (BR-15) 40
Rivas, M. (BA-03) 23
Rivelles, A. (FD-08) 110
Riveros, A. (CF-05) 52
Rizzi, P. (BF-04) 32
Robertson, I. (FB-06) 106
Robertson, J. (CP-10) 58
Rocchino, L. (DF-09) 74
Rocco, D.L. (AR-01) 19
Rocco, D.L. (AR-02) 19
Rocco, D.L. (CS-09) 63
Rocco, D.L. (VP14-03) 157
Rocco, D.L. (VP14-17) 159
Rocha, J.V. (BA-01) 22
Rocha, T. (AQ-07) 17
Roche, S. (BG-10) 35
Rode, K. (BD-05) 29
Rode, K. (FD-02) 109
Rode, K. (GC-01) 120
Rodrigo, I. (DD-01) 68
Rodrigues Jr, D. (DE-09) 72
Rodrigues Jr, D. (ES-04) 103
Rodrigues, C.L. (AS-06) 21
Rodrigues, D. (AA-06) 2
Rodrigues, D. (CC-06) 46
Rodrigues, D. (CF-05) 52
Rodrigues, N.A. (CS-13) 63
Rodriguez Alvarez, J. (AB-07) 3
Rodriguez, E. (BQ-06) 37
Rodriguez, G. (CG-08) 55

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Rodriguez, J.O. (CQ-04) 59
Rodriguez, M. (GF-10) 128
Rodriguez, R. (BQ-04) 37
Rodriguez, R. (BQ-06) 37
Rodriguez, R. (CG-08) 55
Rodriguez, R. (CQ-10) 60
Rogalev, A. (DR-03) 80
Rogalev, A. (FG-05) 115
Rogers, M. (GG-09) 130
Rohart, S. (CA-02) 42
Rojas-Ayala, C. (DQ-04) 79
Rojas-Sanchez, J. (AC-08) 5
Rojas-Sanchez, J. (AP-10) 15
Rojas-Sanchez, J. (CG-02) 54
Rojas-Sanchez, J. (CG-07) 55
Rojas-Tapia, J. (DQ-04) 79
Román, A. (EG-10) 98
Román, A. (VP7-17) 143
Romanenko, D. (CR-05) 61
Romanyuk, V. (AS-11) 22
Romary, R. (BE-10) 31
Romera, M. (AC-02) 4
Ronchi, J.C. (ES-02) 102
Rong, B. (VP7-16) 143
Rong, Y. (VP6-07) 140
Rongione, E. (AC-05) 5
Rongione, E. (BD-07) 29
Roppert, K. (EQ-05) 100
Rosa, M.A. (DE-06) 71
Rosa, M.A. (ES-02) 102
Rosa, M.A. (ES-06) 103
Rosa, M.A. (FG-06) 116
Rosales-Rivera, A. (DR-04) 81
Ross, C. (AF-03) 11
Rothschild, A. (FB-05) 106
Rothschild, A. (FD-03) 109
Roussigné, Y. (BG-01) 34
Rouxinol, F. (EC-05) 88
Royo-Silvestre, I. (AF-08) 12
Ruck, B. (AD-01) 6
Rueangnetr, N. (BP-11) 36
Ruela, L.M. (EC-05) 88
Ruiz-Rubio, L. (BR-16) 40
Ruotsalainen, K. (BD-05) 29
Rusz, J. (GG-08) 130
Ryapolov, P. (VP4-04) 136
Rychly-Gruszecka, J.N. (EE-09) 93
Rychly-Gruszecka, J.N. (GG-08) 130
Ryu, J. (AR-06) 19

- S -

Saari, M. (VP13-07) 155
Sabirianov, R. (GG-03) 129
Sadowski, N. (CS-14) 63
Sadowski, N. (FE-03) 111
Safeer, S. (DG-03) 75
Saha, R. (BA-04) 23
Saha, S. (AE-02) 9
Sahlberg, M. (DR-03) 80
Sahoo, B. (AC-06)* 5
Sahoo, B. (CG-11) 56
Sahoo, P. (VP6-04) 139
Sailler, S. (GD-08) 124
Sait, C.R. (EG-04) 96
Saito, A. (VP15-14) 161
Saito, S. (BP-09) 36
Saito, Y. (VP6-08) 140
Saitovitch, E.M. (AQ-13) 18
Saitovitch, E.M. (BR-05) 38
Saitovitch, E.M. (GB-03) 118
Saji, C. (CB-04) 44
Sakamoto, S. (DG-01) 75
Sakamoto, S. (GD-04) 123
Sakuraba, Y. (GA-04) 117
Salazar Jamillo, D. (BR-16) 40
Salazar Jamillo, D. (DR-04) 81
Salazar-Henao, N.A. (DR-04) 81
Salazar, J.M. (EC-08) 88
Salgado Cabaco, J. (GG-05) 129
Salles, B.R. (EP-06) 99
Salvador, M. (BA-03) 23
Samantaray, B. (AP-04) 15
Samatham, S. (DQ-08) 79
Samatham, S. (VP4-16) 137
Samatham, S. (VP4-18) 137
Sampaio, J. (CA-02) 42
Sampaio, L. (CQ-07) 60
Sampaio, L. (DG-03) 75
Sampaio, L. (GB-01) 118
Sampathirao, S. (VP5-02) 138
Sampietro, C.F. (ES-05) 103
Samsudin, A. (VP13-07) 155
Sanchez Llamazares, J.L. (FG-01) . . . 114
Sánchez-Agudo, M. (GF-05) 127
Sánchez, P. (AB-11) 4
Sanchez, R. (CS-05) 62
Sanger, Z. (BA-04) 23
Sankaran, K. (AC-09) 6
Sanmamed, Y.A. (GA-03) 117
Santamaria, J. (AC-02) 4
Santiso, J. (AQ-03) 16
Santiso, J. (AQ-16) 18
Santiso, J. (CG-02) 54
Santos, B. (AS-02) 21
Santos, B.B. (CS-11) 63
Santos, B.B. (DR-13) 82
Santos, E. (AG-08) 14
Santos, O. (FA-01) 104
Sanz González, R. (EG-08) 97
Sanz, M. (FD-08) 110
Sapovskii, I. (VP14-05) 157
Sarmiento, A. (BF-09) 33
Sasaki, S. (VP4-07) 136
Sasaki, S. (VP15-09) 160
Sassi, Y. (CD-06) 48
Satchell, N. (GB-05) 119
Satchell, N. (GG-09) 130
Satheesh, S. (FB-09) 107
Sato, F. (VP4-07) 136
Sato, F. (VP15-09) 160
Sato, F. (VP15-14) 161
Sato, S. (CQ-01) 59
Sato, T. (EF-02) 94
Sato, Y. (GC-10) 122
Satz, A. (EB-02) 85
Satz, A. (EC-08) 88
Savero-Torres, W. (CD-08) 49
Savero-Torres, W. (ER-02) 101
Saw, A.K. (DR-09) 81
Sawaya Sucaria, R. (FG-08) 116
Saxena, R.N. (AS-03) 21
Saxena, R.N. (BR-07) 39
Saxena, R.N. (CS-11) 63
Saxena, R.N. (DR-13) 82
Scalise, L. (AS-03) 21
Scalise, L. (BQ-10) 38
Scalise, L. (CS-11) 63
Scaparo, I. (AB-05) 3
Schaefer, S. (GB-06) 119
Schäfer, K. (VP4-01) 135
Schäfer, L. (VP4-01) 135
Schäffer, R. (GF-05) 127
Scheibel, F. (VP9-01) 144
Schell, J. (BQ-10) 38
Schellekens, J. (CE-05) 50
Schio, P. (BF-05) 32
Schio, P. (DQ-07) 79
Schlueter, C. (AQ-09) 17
Schmidt, G. (BF-01) 31
Schmidt, O.G. (DS-08) 83
Schmitz, C. (GE-05) 125
Schmitz, D. (GE-05) 125
Schmoll, D. (BB-03) 24

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Schmoll, D. (EG-09) 97
Scholten, S. (FB-06) 106
Scholz, T. (CP-02) 57
Scholz, T. (DG-02) 75
Scholz, T. (FB-09) 107
Schönfeldt, M. (ES-07) 103
Schorr, L. (AB-05) 3
Schrader, C. (DG-02) 75
Schrefl, T. (AE-09) 10
Schrefl, T. (CF-11) 53
Schrefl, T. (DB-06) 66
Schulman, A. (CF-06) 53
Schulman, A. (EB-09) 87
Schulman, A. (FD-05) 110
Schultz, M. (EB-10) 87
Schulz, F. (FB-09) 107
Schulz, F. (GD-03) 122
Schütz, G. (FB-09) 107
Schwarz, B. (BE-07) 30
Schweizer, M.R. (BB-04) 24
Sebe, N. (CD-06) 48
Sedrpooshan, M. (BC-06) 27
Seidler, D. (DS-06) 83
Sekh, B. (CC-01) 45
Sekino, M. (BA-02) 22
Sekino, M. (DD-06) 69
Sekino, M. (DD-08) 70
Sekino, M. (DD-09) 70
Sen, P. (AE-02) 9
Sena, C. (BR-03) 38
Seneor, P. (CG-04) 55
Seneor, P. (CP-10) 58
Seneor, P. (CP-12) 58
Seo, J. (DP-06) 78
Seo, K. (EQ-07) 100
Seol, H. (AR-06) 19
Sepehri-Amin, H. (AD-09) 8
Sepehri-Amin, H. (ES-01) 102
Serga, A.A. (BB-04) 24
Serha, R. (AG-05) 14
Serha, R. (BB-03) 24
Serha, R. (DB-06) 66
Serha, R. (EG-09) 97
Serpico, C. (EG-02) 96
Sessi, P. (FF-09) 114
Sgarro, P. (BP-01) 35
Sgarro, P. (CD-08) 49
Sgarro, P. (ER-02) 101
Sgarro, P. (ER-05) 101
Sha, Y. (VP1-03) 131
Sha, Y. (VP3-05) 133
Sha, Y. (VP10-24) 149
Sha, Y. (VP11-01) 150
Shabalin, A. (CF-02) 52
Shah, A. (VP7-10) 142
Shahee, A. (CP-02) 57
Shakeel, S. (VP6-09) 140
Shalygin, A. (GF-08) 127
Shan, W. (VP1-06) 131
Sharafullin, I.F. (DQ-09) 79
Sharangi, P. (GF-10) 128
Sharma, A. (CC-08) 47
Sharma, R. (AB-02) 2
Sharma, V. (GC-09) 121
Sharmin, S. (GG-07) 129
Shaw, J.M. (GB-07) 119
She, D. (FF-08) 114
Shen, Y. (VP5-10) 139
Shendrikova, L. (GF-08) 127
Sheng, R. (AR-05) 19
Shenoi, R. (DC-05) 68
Shepley, P. (GB-05) 119
Shepley, P. (GG-09) 130
Shi, G. (CB-01) 43
Shi, G. (FF-01) 112
Shi, J. (AD-04) 7
Shi, K. (AD-05) 7
Shi, K. (BQ-01) 36
Shi, L. (VP3-09) 134
Shi, L. (VP3-14) 134
Shi, S. (FF-02) 113
Shi, S. (FF-05) 113
Shiao, M. (BA-04) 23
Shiga, M. (DG-01) 75
Shiga, M. (GD-04) 123
Shigeta, I. (VP4-14) 137
Shih, C. (VP14-06) 157
Shiku, K. (VP13-01) 154
Shimizu, G. (DE-09) 72
Shimizu, G. (ES-04) 103
Shin, H. (BA-04) 23
Shin, H. (VP11-04) 150
Shin, Y. (AR-06) 19
Shin, Y. (VP7-09) 142
Shin, Y.J. (CB-05) 44
Shinji, T. (FE-02) 111
Shinshi, T. (VP2-02) 132
Shmilovitz, D. (VP15-16) 161
Shpyrko, O. (CF-02) 52
Shravan Kumar
Reddy, S. (VP4-16) 137
Shravan Kumar
Reddy, S. (VP4-18) 137
Shreya, S. (CC-04) 46
Shukla, A. (CD-05) 48
Shun, W. (VP6-05) 140
Si, J. (DA-05) 65
Sidi El Valli, A. (AA-03) 1
Sidi El Valli, A. (CC-05) 46
Sierra, J. (FF-06) 113
Siewierska, K.E. (BD-05) 29
Sikola, T. (BB-08) 25
Silva Teixeira, C. (FG-08) 116
Silva, B.G. (AQ-01) 16
Silva, B.G. (GF-04) 127
Silva, D.A. (ES-05) 103
Silva, G.S. (BR-10) 39
Silva, G.S. (BR-12) 39
Silva, J. (ER-07) 101
Silva, M. (GA-02) 117
Silveira, C.C. (CS-15) 63
Silveyra, J.M. (BE-09) 30
Silveyra, J.M. (DF-06) 73
Sim, J. (VP12-09) 152
Simões e Silva, W. (CP-09) 58
Simons, G. (BD-01) 28
Singer, A. (CF-02) 52
Singh, H. (BD-03) 28
Singh, M. (VP4-18) 137
Singh, S. (EP-01) 98
Sinnecker, J.P. (CB-08) 45
Sinnecker, J.P. (CQ-07) 60
Sinnecker, J.P. (EC-05) 88
Sinova, J. (GD-05) 123
Sinova, J. (GD-06) 123
Sisniega Soriano, B. (AF-10)* 13
Sitnikov, M. (EQ-03) 100
Skokov, K. (DE-02) 71
Skokov, K. (DR-03) 80
Skokov, K. (DR-05) 81
Skokov, K. (DR-11) 82
Skokov, K. (EE-02) 92
Skokov, K. (ES-01) 102
Skokov, K. (FG-01) 114
Skokov, K. (FG-05) 115
Skokov, K. (FG-06) 116
Skokov, K. (VP4-01) 135
Skokov, K. (VP9-01) 144
Skorvanek, I. (GF-01) 126
Skourski, Y. (ES-01) 102
Skowronski, W. (BG-05) 34
Slavin, A.N. (CC-03) 46

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Slezak, M. (GD-02) 122
Slezak, T. (GD-02) 122
Smejkal, L. (GD-06) 123
Smejkal, L. (GD-08) 124
Smith, D. (CC-05) 46
Snarski-Adamski, J. (EE-09) 93
Snarski-Adamski, J. (GG-08) 130
Soares de Brito, A. (VP4-17) 137
Soares, C.C. (AQ-07) 17
Soares, G. (GB-07) 119
Soares, G.K. (BQ-09) 37
Soares, G.K. (CR-08) 61
Soares, J. (BR-01) 38
Sobucki, K. (BB-07) 25
Sobucki, K. (CF-01) 51
Socolovsky, L.M. (BR-15) 40
Socolovsky, L.M. (DP-05) 77
Soejima, Y. (DD-08) 70
Sokolov, E. (VP4-04) 136
Soldatof, I. (GF-05) 127
Soler-Morala, J. (GF-05) 127
Solis, L.M. (CG-02) 54
Solozabal Azcarate, I. (BC-03) 26
Solozabal Azcarate, I. (ED-02) 90
Sommer, R.L. (AQ-01) 16
Sommer, R.L. (BB-11) 25
Sommer, R.L. (CB-08) 45
Sommer, R.L. (CQ-09) 60
Sommer, R.L. (CR-07) 61
Sommer, R.L. (EG-06) 97
Sommer, R.L. (GF-04) 127
Song, C. (CP-04) 57
Song, C. (DP-09) 78
Song, C. (VP3-13) 134
Song, C. (VP10-05) 146
Song, M. (VP7-06) 142
Song, P. (BS-09) 41
Song, P. (DP-08) 78
Song, P. (EQ-06) 100
Song, S. (BS-02) 40
Song, X. (DD-02) 69
Song, X. (ES-14) 104
Soni, S. (CC-04) 46
Soong, W. (DC-04) 67
Soulan, S. (DD-03) 69
Soumah, L. (AA-03) 1
Sousa, L.R. (BA-01) 22
Sousa, M.A. (BR-05) 38
Sousa, R. (AA-03) 1
Souza, A.M. (AS-06) 21
Souza, C.M. (VP9-02) 145
Souza, E. (BQ-05) 37
Souza, E. (CG-10) 56
Souza, E. (CR-04) 61
Souza, I.O. (VP13-02) 154
Souza, I.O. (VP13-12) 156
Souza, I.O. (VP15-08) 160
Souza, J.C. (CP-09) 58
Souza, K.S. (AS-03) 21
Souza, K.S. (BR-07) 39
Souza, R.D. (ES-02) 102
Souza, S.M. (ES-02) 102
Souza, S.M. (ES-03) 102
Souza, S.M. (ES-05) 103
Souza, S.M. (ES-12) 103
Spetzler, B. (DS-06) 83
Spetzler, B. (EB-07) 86
Spetzler, E. (BF-01) 31
Spetzler, E. (DS-06) 83
Spetzler, E. (EB-07) 86
Srikanth, H. (CG-01) 54
Srikanth, H. (ED-05) 90
Srinivasan, K. (EB-01) 85
Srivastava, A. (CP-01) 56
Stadler, B. (DD-04) 69
Stamatopoulos, I. (DS-05) 82
Stamenov, P. (FD-02) 109
Stamenov, P.S. (BD-05) 29
Stamenov, P.S. (GC-01) 120
Stankovic, I. (AQ-06) 17
Stark, A. (AD-08) 8
Staruch, M. (GB-04) 119
Stashkevich, A.A. (DS-07) 83
Stavila, C. (EP-07) 99
Steblii, M. (CF-06) 53
Stehr, J. (AS-05) 21
Steinbauer, M.K. (AF-05) 12
Steinhorst, S. (CE-10) 51
Stenning, K.D. (AA-01) 1
Stepien, M. (AR-03) 19
Stepien, M. (CE-01) 49
Stepney, S. (AA-01) 1
Steren, L. (AQ-03) 16
Steren, L. (AQ-16) 18
Steren, L. (CG-02) 54
Steren, L. (EG-10) 98
Steren, L. (VP7-17) 143
Stiles, M.D. (AA-03) 1
Stoian, G. (CS-01) 62
Stoian, G. (ES-10) 103
Stoian, G. (VP7-03) 141
Strom, D. (DR-02) 80
Su, G. (CG-03) 54
Su, J. (VP7-14) 142
Suess, D. (AB-11) 4
Suess, D. (AE-09) 10
Suess, D. (AG-05) 14
Suess, D. (DB-06) 66
Suess, D. (EB-02) 85
Suess, D. (EC-08) 88
Suess, D. (EG-09) 97
Suess, D. (VP6-09) 140
Sugahara, K. (BE-04) 30
Suguihiro, N.M. (EP-06) 99
Sulaiman, M. (VP13-07) 155
Sullivan, C. (CC-10) 47
Sullivan, C. (EF-12) 95
Sumi, T. (FE-02) 111
Sun, C. (VP10-01) 146
Sun, C. (VP14-09) 158
Sun, H. (VP14-14) 158
Sun, H. (VP15-15) 161
Sun, J. (FF-03) 113
Sun, J.Z. (DA-02) 64
Sun, L. (VP6-07) 140
Sun, N.X. (EC-06) 88
Sun, Q. (CA-05) 43
Sun, Q. (ES-11) 104
Sun, Q. (ES-14) 104
Sun, R. (VP12-03) 152
Sundaram, P. (ED-06) 91
Sung, M. (VP12-09) 152
Surdin, O. (DE-07) 72
Suresh, K.G. (DQ-08) 79
Suto, H. (AD-10) 8
Svec, P. (GF-01) 126
Swindells, C. (AA-01) 1
Swindells, C. (CS-04) 62
Syed, A.R. (CQ-09) 60
Syskaki, M. (GD-05) 123
Syskaki, M. (GD-09) 124
Szilva, A. (ER-07) 101
Szulc, K. (CB-06) 44
Szulc, K. (CF-01) 51
Szulc, K. (DB-05) 66

- T -

T.S. Barthem, V.M. (AQ-11) 18
Tabata, J. (DD-08) 70
Tabata, T. (EF-09) 95
Tabata, T. (EF-10) 95

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Tacchi, S. (CB-07) 44
Tacchi, S. (DB-01) 65
Tacchi, S. (GB-07) 119
Tahara, G. (VP2-02) 132
Tai, C. (EP-02) 98
Takahashi, Y. (AD-09) 8
Takahashi, Y. (AF-01) 11
Takayama, J. (CQ-01) 59
Takeda, K. (FE-02) 111
Takinami, A.H. (CE-06) 50
Takorabet, N. (EQ-14) 100
Takorabet, N. (GE-09) 125
Talanov, A.V. (CB-05) 44
Talantsev, A. (EB-06) 86
Talatchian, P. (AA-03) 1
Talatchian, P. (BP-08) 36
Talmelli, G. (AD-02) 7
Talmelli, G. (BP-02) 35
Talmelli, G. (FD-07) 110
Tamaru, S. (GF-07) 127
Tan, A. (FB-07) 106
Tan, T. (CE-07) 50
Tanaka, K. (CE-11) 51
Tanaka, K. (DG-01) 75
Tancredi, P. (BR-11) 39
Tancredi, P. (BR-15) 40
Tang, P. (BB-01) 24
Tang, W. (EE-06) 93
Taniwaki, M. (AP-11) 16
Tapia, I. (AB-01) 2
Taqavi, O. (DP-08) 78
Taqavi, O. (EQ-06) 100
Taqavi, O. (VP3-15) 135
Tarazona, H.S. (AP-10) 15
Tashli, M. (ED-06) 91
Tataryn, N. (AS-11) 22
Taubel, A. (VP9-01) 144
Tchernyshyov, O. (FD-01) 109
Teixeira, A.C. (EP-06) 99
Teixeira, C.D. (FG-06) 116
Temst, K. (AC-09) 6
Temst, K. (BP-02) 35
Temst, K. (FD-07) 110
Tene Deffo, Y. (VP4-03) 136
Terada, S. (EF-09) 95
Terada, S. (EF-10) 95
Terán, C.L. (AQ-04) 17
Tereshina, I. (DE-07) 72
Teresi, S. (BP-01) 35
Teresi, S. (CD-08) 49
Teresi, S. (ER-02) 101
Tergolina Salton, A. (DP-03) 77
Tergolina Salton, A. (DP-04) 77
Ternero, P. (BC-06) 27
Tetienne, J. (FB-06) 106
Thakur, I. (AB-05) 3
Tham, K. (BP-09) 36
Thomson, T. (DQ-03) 79
Thormählen, L. (BF-01) 31
Thorsson, L. (GF-10) 128
Tian, B. (VP14-11) 158
Tian, B. (VP14-13) 158
Tian, C. (EG-07) 97
Tian, H. (VP1-06) 131
Tian, S. (DB-08) 66
Tiberto, P. (BF-04) 32
Tiberto, P. (GF-10) 128
Tibu, M. (VP7-03) 141
Tikhonov, Y. (CA-04) 43
Todaka, T. (VP10-07) 147
Toledo Junior, F.G. (CS-09) 63
Tomasello, R. (AG-01) 13
Tomasello, R. (EG-11) 98
Tomasello, R. (GB-05) 119
Tomiatti, L. (BR-14) 39
Toniato, A. (DB-07) 66
Tonini, D. (BA-04) 23
Tonini, D. (VP13-08) 155
Tonthat, L. (AF-02) 11
Tonthat, L. (EP-05) 99
Tonyushkin, A. (DD-05) 69
Torrao Victor, R. (CR-03) 61
Torrao Victor, R. (DG-03) 75
Torres, L. (FD-08) 110
Torres, T.E. (CQ-06) 59
Torres, T.E. (DD-01) 68
Tortarolo, M. (BF-09) 33
Tozman, P. (EE-02) 92
Tozman, P. (ES-01) 102
Trajano Ribeiro, P. (BQ-05) 37
Trampert, A. (DG-06) 76
Trapanese, M. (FE-07) 112
Trevillian, C. (AF-04) 12
Trevillian, C. (DB-09) 67
Trodahl, J. (AD-01) 6
Troncoso, R. (CB-04) 44
Tsafack, P. (VP4-03) 136
Tsai, H. (DG-01) 75
Tsai, M. (BQ-03) 37
Tsai, M. (VP5-01) 138
Tsai, M. (VP14-06) 157
Tsakaloudi, V. (EF-01) 94
Tsao, M. (CC-05) 46
Tschirner, T. (GD-06) 123
Tschudin, M. (DG-02) 75
Tseng, Y. (AD-06) 8
Tseng, Y. (CC-02) 46
Tseng, Y. (CG-09) 56
Tsuchida, Y. (BS-10) 41
Tsuchida, Y. (GE-02) 125
Tsunegi, S. (FC-03) 107
Tsunoda, M. (DS-09) 83
Tulapurkar, A.A. (CD-05) 48
Tumelero, M. (BQ-07) 37
Tumelero, M. (DR-12) 82
Tyberkevych, V. (AF-04) 12
Tyberkevych, V. (CC-03) 46
Tyberkevych, V. (DB-09) 67
Tzschaschel, C. (EG-01) 96

- U -

Ulian Lopes, L. (DE-09) 72
Ulian Lopes, L. (ES-03) 102
Ulian Lopes, L. (ES-04) 103
Ulian Lopes, L. (ES-12) 103
Ullrich, A. (AG-05) 14
Ulvr, M. (DF-09) 74
Umerski, A. (GB-01) 118
Umetsu, R. (VP4-14) 137
Upadhyay, P. (DC-02) 67
Urbánek, M. (AS-12) 22
Urbánek, M. (BB-08) 25
Urbánek, M. (CB-09) 45
Urbánek, M. (DB-08) 66
Urbánek, M. (EG-09) 97
Urcia Romero, S. (AP-02) 15
Urdiroz, U. (GF-05) 127
Urreta, S. (AB-09) 4
Urretavizcaya, G. (DD-01) 68
Ustinov, A.B. (DS-07) 83
Ustinov, A.B. (GC-07) 121

- V -

Vadde, V. (CC-08) 47
Vafaee, M. (BG-05) 34
Vakhitov, R.M. (DQ-13) 80
Valadares, M.C. (BA-01) 22
Valdes, D. (DD-01) 68
Valdes, J. (AQ-06) 17
Valença, C.M. (CQ-03) 59
Valença, C.M. (EQ-04) 100
Valenzuela, S.O. (FF-06) 113

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Valerio-Cuadros, M. (VP4-17) 137
Valizadeh, I. (VP4-01) 135
Van Bodegraven, F. (DC-05) 68
van der Heide, P. (AD-08) 8
van der Tol, J. (BD-01) 28
van Dijken, S. (FA-04) 105
Van Houdt, J. (AC-09) 6
Van Waeyenberge, B. (AB-06) 3
Van Waeyenberge, B. (CB-03) 44
Varahabhatla, S.M. (CS-16) 64
Vas, J. (CP-02) 57
Vas, J. (DG-02) 75
Vasilaki, E. (AA-01) 1
Vasquez Mansilla, M. (DD-01) 68
Vavaro, G. (AG-05) 14
Vavassori, P. (EG-10) 98
Vaz, C.A. (BF-07) 33
Vaz, C.A. (BF-09) 33
Vaz, F. (CQ-03) 59
Vaz, F. (EQ-04) 100
Vázquez, M. (AB-09) 4
Vázquez, M. (AQ-15) 18
Vázquez, M. (BC-07) 27
Veciana, A. (FC-08) 108
Vedernikov, L.S. (DS-07) 83
Vega, V. (BC-08) 27
Vega, V. (GB-06) 119
Velásquez, J.C. (DQ-02) 78
Velázquez, D. (CG-07) 55
Velázquez, D. (CQ-06) 59
Veloso-Fernández, A. (BR-16) 40
Venkat, G. (AA-01) 1
Venu, A.C. (VP7-02) 141
Vera, L.J. (BS-08) 41
Verba, R.V. (BB-03) 24
Verba, R.V. (BB-07) 25
Verba, R.V. (DB-08) 66
Verba, R.V. (EG-09) 97
Vergara, S. (FE-05) 112
Vergnaud, C. (CG-08) 55
Verma, S. (VP4-08) 136
Verma, S. (VP14-07) 157
Veyrat, L. (GD-06) 123
Viana, A.M. (DS-02) 82
Vicente Arche, L. (AC-05) 5
Vicente Arche, L. (ER-05) 101
Vicente Arche, L. (FF-08) 114
Vidamour, I.T. (AA-01) 1
Vieira, A. (AQ-08) 17
Vieira, D.P. (BR-07) 39
Vieira, G. (ES-06) 103
Vigo, H. (AP-02) 15
Viguier, C. (GE-09) 125
Vila, L. (BP-01) 35
Vila, L. (CD-08) 49
Vila, L. (ER-02) 101
Vila, L. (ER-05) 101
Vilas-Vilela, J. (BR-16) 40
Vilas-Vilela, J. (DF-01) 73
Vilca Huayhua, C.A. (VP4-20) 138
Vilela, G. (AQ-07) 17
Ville, J. (GC-03) 121
Vinokur, V. (CA-04) 43
Viret, M. (AC-05) 5
Viret, M. (GD-07) 123
Vishina, A. (DE-03) 71
Visonà, A. (DD-03) 69
Visonà, A. (ED-01) 89
Vital, F.L. (DQ-07) 79
Vitor de Faria, P. (FG-08) 116
Vivas Arellano, M.E. (CS-05) 62
Vojáček, L. (BG-10) 35
Vojáček, L. (CP-05) 57
Volkov, O.M. (VP6-09) 140
von Freymann, G. (BB-04) 24
von Klitzing, R. (ED-05) 90
Voronov, A. (AE-09) 10
Voronov, A. (EG-09) 97
Vovk, S. (EF-01) 94

- W -

Wachter, H. (GF-10) 128
Wada, M. (DD-08) 70
Wagner, M. (DB-07) 66
Wagner, T. (GD-02) 122
Wahhab, H. (EB-01) 85
Wahlqvist, D. (BC-06) 27
Waissman, J. (CB-05) 44
Wan, C. (CR-02) 61
Wan, C. (ER-04) 101
Wan, Z. (VP14-14) 158
Wang, A. (VP14-09) 158
Wang, C. (VP3-01) 133
Wang, C. (VP10-12) 147
Wang, C. (VP14-06) 157
Wang, D. (VP8-02) 144
Wang, D. (VP15-02) 159
Wang, F. (CB-01) 43
Wang, F. (FF-01) 112
Wang, H. (CE-08) 50
Wang, H. (CP-02) 57
Wang, H. (DG-02) 75
Wang, H. (GE-08) 125
Wang, H. (VP1-03) 131
Wang, H. (VP1-07) 131
Wang, H. (VP1-10) 131
Wang, H. (VP3-05) 133
Wang, H. (VP10-24) 149
Wang, H. (VP11-01) 150
Wang, H. (VP12-06) 152
Wang, H. (VP15-03) 159
Wang, J. (AC-10) 6
Wang, J. (BA-04) 23
Wang, J. (DD-07) 70
Wang, J. (EE-06) 93
Wang, J. (FF-02) 113
Wang, J. (VP2-04) 133
Wang, J. (VP4-02) 135
Wang, J. (VP4-13) 137
Wang, J. (VP13-08) 155
Wang, K. (GG-01) 128
Wang, M. (VP3-11) 134
Wang, M. (VP10-21) 148
Wang, M. (VP12-04) 152
Wang, P. (BP-05) 35
Wang, P. (VP7-06) 142
Wang, Q. (DB-06) 66
Wang, Q. (DB-08) 66
Wang, S. (AD-03) 7
Wang, S. (AD-11) 8
Wang, S. (VP10-06) 146
Wang, S. (VP10-17) 148
Wang, S.X. (ED-08) 91
Wang, S.X. (ED-09) 91
Wang, S.X. (EP-04) 99
Wang, T. (CP-04) 57
Wang, T. (VP5-03) 138
Wang, W. (VP10-17) 148
Wang, W. (VP10-28) 149
Wang, X. (AC-08) 5
Wang, X. (FF-02) 113
Wang, X. (VP12-01) 151
Wang, Y. (AR-04) 19
Wang, Y. (AR-05) 19
Wang, Y. (CP-07) 57
Wang, Y. (DQ-10) 79
Wang, Y. (ES-11) 104
Wang, Y. (VP3-10) 134
Wang, Y. (VP9-06) 145
Wang, Y. (VP10-15) 148
Wang, Y. (VP10-30) 149
Wang, Y. (VP10-31) 149
Wang, Y. (VP12-03) 152

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Wang, Y. (VP13-10) 156
Wang, Y. (VP15-01) 159
Wang, Y. (VP15-19) 161
Wang, Y.A. (DD-07) 70
Wang, Z. (VP2-01) 132
Wang, Z. (VP15-18) 161
Warisarn, C. (BP-11) 36
Warisarn, C. (VP7-12) 142
Warsi, S.K. (VP5-02) 138
Wasniewski, E. (DF-03) 73
Wasniewski, E. (EF-05) 94
Watanabe, T. (AF-03) 11
Watanabe, T. (DB-04) 66
Watt, S. (GC-04) 121
Weeger, O. (VP4-01) 135
Wei, C. (BF-07) 33
Wei, H. (CG-04) 55
Wei, H. (CP-12) 58
Wei, J. (AR-10) 20
Wei, J. (CE-08) 50
Wei, J. (VP10-17) 148
Wei, X. (AR-13) 20
Wei, Z. (AQ-15) 18
Weickert, F. (DF-09) 74
Weickert, F. (GA-01) 117
Weigand, M. (BB-02) 24
Weigand, M. (FB-09) 107
Weil, R. (CA-02) 42
Weiler, M. (CF-05) 52
Weissenhofer, M. (GD-09) 124
Wellens, P. (DC-05) 68
Wen, H. (VP5-03) 138
Wen, X. (VP10-08) 147
Wende, H. (DR-03) 80
Wende, H. (EE-04) 92
Wende, H. (FG-05) 115
Wendhausen, P.A. (DE-06) 71
Wendhausen, P.A. (DE-09) 72
Wendhausen, P.A. (ES-02) 102
Wendhausen, P.A. (ES-03) 102
Wendhausen, P.A. (ES-04) 103
Wendhausen, P.A. (ES-05) 103
Wendhausen, P.A. (ES-06) 103
Wendhausen, P.A. (ES-12) 103
Wendhausen, P.A. (FG-06) 116
Wereley, N. (VP4-06) 136
Wereley, N. (VP9-04) 145
Werwinski, M. (EE-09) 93
Werwinski, M. (GG-08) 130
Weßels, T. (EE-04) 92
Westerström, R. (BC-06) 27
Wiegand, P. (EB-07) 86
Wiekhorst, F. (AB-06) 3
Wijshoff, M. (BP-02) 35
Wilgocka-Slezak, D. (GD-02) 122
Wilhelm, F. (DR-03) 80
Wilhelm, F. (FG-05) 115
Williams, F.J. (AQ-03) 16
Williams, F.J. (AQ-16) 18
Wilson, A. (DF-09) 74
Wilson, A. (GA-06) 118
Wiltuschnig, I.P. (DP-03) 77
Wiltuschnig, I.P. (DP-04) 77
Wingert, J. (CF-02) 52
Winkler, T. (CC-07) 47
Winkler, T. (EC-09) 89
Winther, K. (GD-03) 122
Wintz, S. (BB-02) 24
Wintz, S. (FB-09) 107
Wintz, S. (GD-09) 124
Wisniowski, P. (VP13-03) 155
Wissman, M. (CD-08) 49
Wittrock, S. (EG-02) 96
Wojewoda, O. (AS-12) 22
Wojewoda, O. (BB-08) 25
Wojewoda, O. (CB-09) 45
Wojewoda, O. (DB-08) 66
Wolf, M. (VP15-16) 161
Won, Y. (BS-11) 41
Won, Y. (DP-09) 78
Wostyn, K. (AD-02) 7
Wostyn, K. (FD-07) 110
Wrona, J. (BG-05) 34
Wrona, J. (VP13-03) 155
Wu, D. (VP1-09) 131
Wu, D. (VP7-20) 143
Wu, H. (FF-02) 113
Wu, H. (VP2-01) 132
Wu, J. (VP10-09) 147
Wu, K. (BA-04) 23
Wu, K. (DD-07) 70
Wu, K. (VP4-13) 137
Wu, L. (VP10-28) 149
Wu, L. (VP12-03) 152
Wu, Q. (VP5-05) 138
Wu, T. (BQ-03) 37
Wu, T. (VP6-07) 140
Wu, T. (VP9-06) 145
Wu, T. (VP13-10) 156
Wu, X. (BF-06) 32
Wu, X. (VP3-09) 134
Wu, X. (VP3-14) 134
Wu, Y. (AD-06) 8
Wu, Y. (AD-11) 8
Wu, Y. (AR-12) 20
Wu, Y. (AR-13) 20
Wu, Y. (AR-14) 20
Wu, Y. (AR-15) 20
Wu, Y. (BS-01) 40
Wu, Y. (CG-09) 56
Wu, Y. (DP-01) 77
Wu, Y. (EC-03) 88
Wu, Y. (GC-02) 120
Wu, Y. (VP7-04) 141
Wu, Y. (VP7-15) 142
Wu, Z. (DR-11) 82
Wu, Z. (VP11-05) 150
Wysocka, D. (BF-03) 32

- X -

Xavier, M.C. (BA-01) 22
Xavier, V.V. (EE-11) 93
Xi, J. (ES-09) 103
Xia, C. (VP10-32) 149
Xia, C. (VP12-14) 153
Xia, C. (VP12-15) 153
Xia, M. (VP10-19) 148
Xia, T. (VP5-06) 139
Xiang, J. (AR-04) 19
Xiang, Z. (VP1-01) 130
Xiang, Z. (VP1-04) 131
Xiang, Z. (VP1-05) 131
Xiang, Z. (VP1-06) 131
Xiang, Z. (VP3-02) 133
Xiang, Z. (VP12-01) 151
Xiang, Z. (VP12-11) 153
Xiao, F. (VP1-11) 131
Xiao, F. (VP1-13) 132
Xiao, F. (VP3-06) 133
Xiao, F. (VP10-02) 146
Xiao, L. (VP10-25) 149
Xiao, P. (AR-10) 20
Xiao, R. (BQ-01) 36
Xie, H. (VP7-04) 141
Xie, H. (VP7-15) 142
Xie, H. (VP12-13) 153
Xie, R. (EE-04) 92
Xie, R. (VP15-04) 159
Xie, R. (VP15-05) 159
Xie, R. (VP15-06) 160
Xie, S. (VP14-15) 158
Xie, X. (VP3-03) 133
Xin, Z. (BA-02) 22

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Xing, Y. (GB-03) 118
Xiong, D. (BQ-01) 36
Xiong, D. (ER-01) 101
Xiu, F. (FF-03) 113
Xu, D. (VP13-05) 155
Xu, J. (FA-05) 105
Xu, J. (VP5-04) 138
Xu, M. (BB-10) 25
Xu, M. (CB-02) 43
Xu, M. (DB-03) 65
Xu, P. (VP10-16) 148
Xu, R. (GA-05) 118
Xu, X. (CP-04) 57
Xu, X. (VP12-03) 152
Xu, Y. (VP1-03) 131
Xu, Y. (VP3-05) 133
Xu, Y. (VP10-24) 149
Xu, Y. (VP10-25) 149
Xu, Y. (VP11-01) 150
Xu, Z. (FF-05) 113
Xue, H. (VP12-19) 154
Xue, H. (VP12-20) 154
Xue, H. (VP12-21) 154
Xue, W. (CP-04) 57
Xue, Z. (DG-04) 76

- Y -

Yabukami, S. (AF-02) 11
Yabukami, S. (EP-05) 99
Yabukami, S. (GC-05) 121
Yabukami, S. (GC-10) 122
Yactayo Yaranga, M.S. (AP-10) 15
Yamaguchi, M. (GC-10) 122
Yamaguchi, W. (DE-08) 72
Yamamoto, K. (FG-11) 117
Yamashita, A. (VP2-02) 132
Yamauchi, T. (VP4-14) 137
Yamazaki, T. (AP-09) 15
Yamazaki, T. (AP-11) 16
Yamazaki, T. (GF-07) 127
Yan, C. (VP14-15) 158
Yan, C. (VP15-07) 160
Yan, D. (VP8-04) 144
Yan, D. (VP15-18) 161
Yan, Z. (CB-05) 44
Yan, Z. (FA-05) 105
Yanagihara, H. (GG-07) 129
Yanai, T. (VP2-02) 132
Yanes, R. (FD-08) 110
Yang, B. (EE-08) 93
Yang, C. (BQ-08) 37
Yang, C. (CG-03) 54
Yang, C. (VP7-19) 143
Yang, G. (VP5-05) 138
Yang, H. (CA-03) 42
Yang, H. (CB-01) 43
Yang, H. (CP-04) 57
Yang, H. (DA-05) 65
Yang, H. (FF-01) 112
Yang, H. (VP15-07) 160
Yang, I. (BS-02) 40
Yang, I. (DP-02) 77
Yang, J. (BF-07) 33
Yang, J. (CP-02) 57
Yang, J. (VP3-05) 133
Yang, J. (VP3-12) 134
Yang, J. (VP10-22) 148
Yang, J. (VP11-03) 150
Yang, K. (VP1-15) 132
Yang, M. (EE-08) 93
Yang, M. (VP7-19) 143
Yang, M. (VP15-18) 161
Yang, Q. (VP9-07) 145
Yang, S. (DA-05) 65
Yang, S. (EF-11) 95
Yang, S. (GF-02) 126
Yang, S. (GF-03) 126
Yang, S. (VP10-19) 148
Yang, W. (AC-08)^ 5
Yang, W. (VP1-09) 131
Yang, X. (VP15-07) 160
Yang, Y. (VP6-07) 140
Yang, Y. (VP7-16) 143
Yang, Z. (ES-09) 103
Yano, T. (GE-02) 125
Yao, R. (VP1-03) 131
Yao, R. (VP3-05) 133
Yao, R. (VP10-24) 149
Yao, R. (VP11-01) 150
Yao, Y. (ER-01) 101
Yao, Y. (FF-02) 113
Yastrubchak, O. (AS-11) 22
Ye, L. (BQ-03) 37
Yershov, K. (CF-07) 53
Yim, H. (CS-02) 62
Yin, J. (BQ-01) 36
Yin, J. (VP14-08) 157
Yin, L. (VP12-03) 152
Yin, Z. (CP-01) 56
Yokaichiya, F. (AS-08) 21
Yokosawa, M. (VP15-09) 160
Yoon, H. (VP10-11) 147
Yoon, S. (BG-06) 34
Yoon, S. (BS-05) 41
Yoshida, S. (VP14-02) 157
Yoshida, S. (VP14-04) 157
Yoshihara, Y. (AF-03) 11
Yoshihara, Y. (DB-04) 66
You, M. (CG-03) 54
You, Y. (FB-06) 106
Youn, M. (BS-06) 41
Young-Dohe, E. (EF-12) 95
Yu, G. (DQ-10) 79
Yu, G. (ER-04) 101
Yu, G. (VP10-25) 149
Yu, J. (VP1-15) 132
Yu, J. (VP10-10) 147
Yu, J. (VP10-31) 149
Yu, J. (VP11-03) 150
Yu, J. (VP11-07) 150
Yu, J. (VP11-09) 151
Yu, J. (VP12-12) 153
Yu, J. (VP15-19) 161
Yu, W. (VP7-09) 142
Yu, Y. (AP-03) 15
Yu, Y. (FE-09) 112
Yu, Y. (VP15-10) 160
Yu, Z. (VP10-16) 148
Yuan, L. (VP10-02) 146
Yuan, Z. (VP12-04) 152
Yubuta, K. (VP4-14) 137
Yue, M. (DE-02) 71
Yue, M. (DR-11) 82
Yue, M. (ES-09) 103
Yue, M. (VP2-01) 132
Yue, M. (VP2-04) 133
Yue, S. (VP14-01) 156
Yue, S. (VP14-08) 157
Yuen, J. (BA-04) 23
Yun, I. (BS-05) 41
Yun, I. (EQ-12) 100

- Z -

Zabila, Y. (GA-05) 118
Zabotto, F.L. (AS-01) 20
Zaini, M. (VP13-07) 155
Zajac, M. (GD-02) 122
Zamalloa, A.D. (EE-02) 92
Zamudio, G.P. (BB-11) 25
Zamudio, G.P. (CR-07) 61
Zang, J. (AG-07) 14
Zang, Y. (DQ-03) 79

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Zaper, L. (AD-08) 8
Zarpellon, J. (AP-06) 15
Zarzuela, R. (GD-05) 123
Zaspalis, V. (EF-01) 94
Zatko, V. (CG-04) 55
Zatko, V. (CP-10) 58
Zatko, V. (CP-12) 58
Zatko, V. (FF-06) 113
Zehner, D. (AB-11) 4
Zeilinger, S. (EB-02) 85
Zeilinger, S. (EC-08) 88
Zelent, M.K. (AG-03) 13
Zelent, M.K. (DB-05) 66
Zelezny, J. (AC-04) 4
Zemen, J. (GD-08) 124
Zenbaa, N. (DB-06) 66
Zeng, F. (VP13-05) 155
Zeng, H. (GG-03) 129
Zeng, L. (VP2-03) 132
Zeng, L. (VP12-08) 152
Zeng, L. (VP14-10) 158
Zeng, L. (VP14-11) 158
Zeng, L. (VP14-12) 158
Zeng, L. (VP14-13) 158
Zeng, L. (VP14-15) 158
Zeng, L. (VP14-16) 158
Zepon, G. (BC-09) 27
Zhang, B. (VP5-03) 138
Zhang, B. (VP5-07) 139
Zhang, B. (VP5-08) 139
Zhang, B. (VP10-04) 146
Zhang, B. (VP11-06) 150
Zhang, B. (VP11-11) 151
Zhang, B. (VP15-07) 160
Zhang, B. (VP15-12) 160
Zhang, B. (VP15-13) 161
Zhang, C. (BQ-01) 36
Zhang, C. (VP1-07) 131
Zhang, C. (VP1-13) 132
Zhang, C. (VP9-07) 145
Zhang, C. (VP10-15) 148
Zhang, C. (VP14-14) 158
Zhang, D. (VP2-01) 132
Zhang, H. (DE-02) 71
Zhang, H. (DR-11) 82
Zhang, H. (EE-04) 92
Zhang, H. (ER-01) 101
Zhang, H. (GB-08) 120
Zhang, H. (VP2-04) 133
Zhang, J. (BS-01) 40
Zhang, J. (EB-04) 86
Zhang, J. (FF-02) 113
Zhang, J. (VP10-14) 147
Zhang, J. (VP12-13) 153
Zhang, J. (VP15-02) 159
Zhang, J. (VP15-10) 160
Zhang, K. (AD-03) 7
Zhang, L. (CP-07) 57
Zhang, L. (VP10-15) 148
Zhang, M. (VP15-12) 160
Zhang, M. (VP15-13) 161
Zhang, N. (VP7-04) 141
Zhang, N. (VP7-15) 142
Zhang, P. (CP-11) 58
Zhang, P. (VP15-07) 160
Zhang, S. (DQ-10) 79
Zhang, S. (VP15-15) 161
Zhang, S. (VP3-10) 134
Zhang, T. (CR-02) 61
Zhang, W. (BP-05) 35
Zhang, X. (CC-10) 47
Zhang, X. (DQ-10) 79
Zhang, X. (ED-04) 90
Zhang, X. (EP-08) 99
Zhang, X. (FA-05) 105
Zhang, X. (FF-05) 113
Zhang, X. (VP7-20) 143
Zhang, X. (VP8-04) 144
Zhang, Y. (AD-05) 7
Zhang, Y. (BQ-01) 36
Zhang, Y. (DR-11) 82
Zhang, Y. (VP1-10) 131
Zhang, Y. (VP15-04) 159
Zhang, Y. (VP15-05) 159
Zhang, Y. (VP15-06) 160
Zhang, Z. (AD-05) 7
Zhang, Z. (AR-12) 20
Zhang, Z. (AR-13) 20
Zhang, Z. (AR-14) 20
Zhang, Z. (BQ-01) 36
Zhang, Z. (BS-01) 40
Zhang, Z. (CG-11) 56
Zhang, Z. (DP-01) 77
Zhang, Z. (GC-02) 120
Zhang, Z. (VP3-01) 133
Zhang, Z. (VP3-03) 133
Zhang, Z. (VP3-09) 134
Zhang, Z. (VP3-14) 134
Zhang, Z. (VP3-16) 135
Zhang, Z. (VP10-08) 147
Zhang, Z. (VP10-14) 147
Zhang, Z. (VP12-19) 154
Zhang, Z. (VP12-20) 154
Zhang, Z. (VP12-21) 154
Zhang, Z. (VP15-15) 161
Zhao, C. (AD-05) 7
Zhao, D. (FG-03) 115
Zhao, F. (GE-11) 126
Zhao, F. (VP1-15) 132
Zhao, F. (VP10-10) 147
Zhao, F. (VP12-12) 153
Zhao, G. (VP8-01) 143
Zhao, H. (VP10-10) 147
Zhao, H. (VP12-12) 153
Zhao, J. (VP10-16) 148
Zhao, W. (AC-08) 5
Zhao, W. (AD-05) 7
Zhao, W. (BQ-01) 36
Zhao, W. (DS-08) 83
Zhao, W. (ER-01) 101
Zhao, W. (FD-09) 110
Zhao, W. (FF-02) 113
Zhao, X. (VP8-02) 144
Zhao, X. (VP10-07) 147
Zhao, X. (VP10-17) 148
Zhao, X. (VP15-10) 160
Zhao, Y. (DQ-10) 79
Zhao, Y. (FF-02) 113
Zhao, Y. (VP13-05) 155
Zheng, H. (VP7-16) 143
Zheng, P. (VP3-11) 134
Zheng, P. (VP10-21) 148
Zheng, P. (VP12-04) 152
Zheng, Y. (VP15-06) 160
Zhong, H. (AD-08) 8
Zhou, D. (AC-08) 5
Zhou, H. (VP12-16) 153
Zhou, J. (VP14-01) 156
Zhou, L. (EE-06) 93
Zhou, Q. (VP10-23) 148
Zhou, X. (VP11-02) 150
Zhou, Z. (DS-08) 83
Zhu, C. (VP15-02) 159
Zhu, D. (AD-05) 7
Zhu, D. (BQ-01) 36
Zhu, D. (CF-02) 52
Zhu, D. (DS-08) 83
Zhu, D. (ER-01) 101
Zhu, H. (VP1-10) 131
Zhu, J. (AC-03) 5
Zhu, J. (VP3-10) 134
Zhu, J. (VP15-17) 161
Zhu, L. (VP10-17) 148
Zhu, M. (ES-11) 104

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist

Zhu, M. (ES-14) 104
Zhu, Q. (VP10-06) 146
Zhu, T. (ER-08) 102
Zhu, W. (VP12-11) 153
Zhu, X. (VP1-06) 131
Zhu, X. (VP1-11) 131
Zhu, X. (VP1-13) 132
Zhu, X. (VP1-14) 132
Zhu, X. (VP3-02) 133
Zhu, X. (VP3-06) 133
Zhu, X. (VP10-09) 147
Zhu, X. (VP10-18) 148
Zhu, X. (VP11-12) 151
Zhu, X. (VP12-02) 151
Zhu, X. (VP12-11) 153
Zhu, Y. (VP12-21) 154
Zhu, Z. (AR-13) 20
Zhu, Z. (FF-02) 113
Zhu, Z. (FF-05) 113
Zhu, Z. (VP10-14) 147
Zhuang, Y. (VP15-04) 159
Zhukov, A. (DF-08) 74
Zhukov, A. (GF-06) 127
Zhukov, G. (VP4-04) 136
Zhukova, V. (DF-08) 74
Zhukova, V. (GF-06) 127
Zou, J. (VP10-25) 149
Zou, M. (VP15-18) 161
Zurbano, R. (BC-03) 26
Zurbano, R. (ED-02) 90
Zvezdin, A. (DE-07) 72
Zysler, R.D. (DD-01) 68

*Best Student Oral Presentation Award Finalist; ^Neil Smith Award Finalist