# 20th International Conference on MAGNETISM

JULY 5-10
2015
BARCELONA
SPAIN

# FINAL PROGRAMME

www.icm2015.org

# Contents

# Welcome Address

On behalf of the Organizing Committees, it is a great pleasure for us welcoming you to Barcelona for the 20th International Conference on Magnetism. The ICM2015 will be held from Sunday, July 5th, until Friday, July 10th, At the Palau de Congressos de Catalunya in Barcelona, Spain. This triennial Conference, organized under the auspices of the International Union of Pure and Applied Physics (IUPAP), is one of the most important in the field of magnetism both from the most basic aspects and the applications and related technologies. As in previous editions, the ICM2015 also incorporates the International Conference on Strongly Correlated Systems (SCES) which is held annually.

We have planned an exciting scientific program including plenary lectures and invited talks, symposia, regular oral and poster presentations that review the latest developments in magnetism and we hope you find it interesting and fruitful.

The Spanish magnetics community members are extremely pleased to host ICM2015. Nowadays, the research in magnetism in Spain is among the most dynamic fields in condensed matter and materials science, widely distributed throughout academic and scientific institutions all throughout the country. The members of this community including permanent, post-doctoral, and PhD staff amount over 400 people. A number of active groups are spread all over the country with particular higher concentration along the axis Madrid-Zaragoza-Barcelona. These research groups cover most of the relevant topics in magnetism and magnetic materials, from basic to technological aspects. It is worth mentioning that the magnetic community benefits of the new synchrotron ALBA, located in the surroundings of Barcelona. On top of the synchrotron facilities, there is a specific soft X-ray beamline dedicated to polarization-dependent spectroscopy and is equipped with a two end-stations for magnetic dichroism and resonant soft X-ray scattering.

The host city, Barcelona, is a modern and sophisticated city with a very rich cultural life. Barcelona's Modernist architecture counts with the work of renowned architects, such as Gaudí or Domènech i Muntaner, the creators of emblematic buildings such as the Sagrada Família, La Pedrera or the Hospital de Sant Pau. Barcelona has also a broad offer of leisure opportunities to satisfy and delight delegates. Fantastic beaches, old Roman and Middle Age buildings are close to the city.
Looking forward to seeing you in the alluring Barcelona! We wish you a very fruitful and pleasant stay.

**ICM 2015 Organizing Committee**

# Organizing Committee

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**Hidenori Takagi**
University of Tokyo, Japan

**Migaku Takahashi**
Tohoku University, Japan

**Koki Takanashi**
Tohoku University, Japan

**Yoshinori Tokura**
University of Tokyo, Japan

**Kazuo Ueda**
University of Tokyo, Japan

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University of California, Riverside United States

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Spanish National Council for Research, Spain

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Nanjing University, China

**Yeong-Der Yao**
Fu Jen University, Taiwan

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## CHAIRS

**Manuel Vazquez,** ICMM CSIC, Madrid, Spain
**Josep Fontcuberta,** ICMAB CSIC, Barcelona, Spain
**Ivan Schuller,** University of California, San Diego, United States

## TOPIC 1: Strongly Correlated Electron System (SCES) (including Superconductivity/Multiferroics)

### Topic Chairs

Coordinator:
**Jose Carlos Gómez-Sal,** *Universidad de Cantabria, Santander, Spain*
**Ernest Bauer,** *Vienna University of Technology, Austria*
**Laura Green,** *University of Illinois at Urbana-Champaign, United States*

### Subtopics

*Ferroics and Multiferroics*
**Meigan Aronson,** *Stony Brook, Univ., New York, United States*
**Je-Geun Park,** *Seoul National, University, Korea*

Superconductivity and magnetism, including exotic superconductivity
**Yuji Matsuda,** Kyoto University, Japan
**Suchitra Sebastian***, University of Cambridge, United Kingdom*

Topological Insulators and metal-insulators transitions
**Anne de Visser,** University of Amsterdam, The Netherlands
**Hermann Suderow,** *Autonomous University, Madrid, Spain*

Heavy Fermion Physics including Valence and charge fluctuations
**Joe Thompson,** Los Alamos Nat. Lab., United States
**Georg Knebel,** *Inac - CEA, Grenoble, France*

Quantum magnetism and physics of frustration
**Claudine Lacroix,** Institut Neel , CNRS, Grenoble, France
**Jose Ignacio Espeso ,** *University of Cantabria, Santander, Spain*

Non-Fermi Liquids and Quantum criticality
**Qimiao Si,** Rice University, Houston, United States
**Tuson Park,** Sungk*yunkwan University, Seoul, South Korea*

Kondo physics in bulk materials and nanoscale structures
**Steffen Wirth** Max Planck-Inst. for Chemical Physics, Dresden, Germany
**Marian Reiffes,** *Slovakian Acad. Science, Kosiçe, Slovakia*

Theory of Strongly Correlated Matter
**Kazumasa Miyake,** Osaka University, Japan
**Mucio Continentino,** *Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro, Brazil*

New Developments
**Huiqiu Yuan,** Zhejiang University, China
**Marisa Medarde,** *Paul Scherrer Institute, Villigen, Switzerland*

**TOPIC 2: Spin Systems & Magnetic Structures**

## Topic Chairs

Coordinator:

- Ingrid Mertig, Martin-Luther-Universität Halle-Wittenberg, Germany
- Isabelle Mirebeau, CEA - Saclay, France
- Juan Bartolomé, ICMA, Zaragoza, Spain

## Subtopics

Low-dimensional. Quantum Spin-Hall effect
**Sergio Valenzuela,** Institut Català de Nanotecnologia, Barcelona, Spain
**Andrey Zheludev,** ETH Zürich, Lab. f. Festkörperphysik, Switzerland

Molecular Magnetism
***Fernando L. Vitalla,*** *Inst. Ciencia de Materiales de Aragón, Zaragoza, Spain*
***Alessandro Vindigni,*** *ETH Zürich, Lab. f. Festkörperphysik, Switzerland*

Highly frustrated magnetism
**Robert Stamps,** University of Glasgow, United Kingdom
**Sylvain Petit,** Lab. Léon Brillouin, Saclay, France

Spin-orbit and spin-lattice couplings
**Pietro Gambardella,** ETH Zürich, Lab. f. Festkörperphysik, Switzerland
**Virginie Simonet,** Inst. L. Neel, Grenoble, France

Magnetism theory & simulation of quantum and classical systems
**Eugene Chudnovsky,** The City University of New York, United States
**Luis Brey,** Inst. Ciencia de Materiales de Madrid-CSIC, Spain

Electronic Structure. Itinerant-electron magnetism. Half-metals. Insulators
**Claudia Felser,** Max Planck-Inst. for Chemical Physics, Dresden, Germany
**Heiko Wende,** University of Duisburg-Essen, Germany

Magnetic phase transitions and magnetic interactions
**Teresa Fernandez-Diaz,** Inst. Laue Langevin, Grenoble, France
**Vitor Amaral,** University Aveiro, Portugal

Magnetic semiconductors and Diluted magnets
**Jesus Chaboy Nalda,** University of Zaragoza, Spain
**Tomasz Dietl,** Polish Academy of Sciences, Warsaw, Poland

Actinides & Lanthanides
**Jesús Rodríguez Fernández,** University of Cantabria, Santander, Spain
**António Pereira Gonçalves,** Ciências e Tecnologias Nucleares, IST, Lisbon, Portugal

Advanced methods of spin structure determination
**Urs Staub,** Paul Scherrer Institut, Switzerland
**Jose Luis García Muñoz,** ICMAB CSIC, Barcelona (Spain)

## TOPIC 3: Spin electronics and transport & magnetization dynamics and micro magnetics

### Topic Chairs

Coordinator:
- Hideo Ohno, Tohoku University, Sendai, Japan
- Mark Stiles, NIST Gaithersburg, United States
- Oksana Chubykalo-Fesenko, ICMM CSIC, Madrid, Spain

### Subtopics

Metal spintronics
**Shinji Yuasa,** Nat. Inst. Advanced Industrial Science and Technology (AIST), Tsukuba, Japan
**Hyun-Woo Lee,** Seoul National University, South Korea

Semiconductor spintronics
**Jianhua Zhao,** Inst Semiconducotrs, Chinese Ac. Sciences, Beijing, China
**Gian Salis,** Zurich Research Lab., IBM, Zurich, Switzerland
Organic spintronics. Carbon-based spintronics
**Felix Casanova,** Nanogune, S.Sebastian, Spain
**Masashi Shiraishi,** University of Kyoto, Japan

Spin transfer torque and spin transfer oscillators
**Masamitsu Hayashi,** Nat. Inst. for Materials Science, NIMS, Tsukuba, Japan
**Matt Pufall,** NIST, Boulder, United States

Domain wall motion
**Andre Thiaville,** University of Paris Sud, France
**Eduardo Martinez,** University of Salamanca, Spain

Electric field effect on magnetic systems
**Daichi Chiba,** University of Tokyo, Japan
**Vincent Garcia,** Unité Mixte de Physique CNRS/Thales, Paris, France

Spin caloritronics
**Christian Heiliger,** University of Giessen, Germany
**Barry Zink,** Denver University, United States

Fast and ultrafast magnetization dynamics
**Markus Munzenberg,** Ernst-Moritz-Arndt Univer., Greifswald, Germany
**Andrzej Maziewski,** University of Białystok, Poland

Spinwave dynamics and magnonics
**Antonio Azevedo,** University Federal Pernanbuco, Brazil
**Paolo Vavassori,** Nanogune, San Sebastian, Spain

Vortex and skyrmion dynamics
**Konstantin Guslienko,** University of Basque Country, San Sebastian, Spain
**Dora Altbir,** University of Santiago, Chile
**Mark Freeman,** University of Alberta, Canada

**TOPIC 4: Magnetism of nanoscale systems: thin films, nanostructures and nanoparticles**

## Topic Chairs

Coordinator:
- Sam Bader, Argonne National Laboratory, Illinois, United States
- Russell Cowburn, University of Cambridge, United Kingdom
- Dino Fiorani, CNR Rome, Italy

## Subtopics

Magnetic thin films and multilayers
**Jordi Sort,** Aut. University of Barcelona, Spain
**Jiyeong Gu,** California St. University, Long Beach, United States

Thin film nanostructures
**Burkhard Hillebrands,** University of Kaiserlautern, Germany
**Ernesto Marinero,** Purdue University, United States

Magnetic nanoparticles
**Peter Svedlindh,** Uppsala University, Sweden
**Anna Roig,** Inst. Ciencia de Materiales, Barcelona, Spain

Perpendicular magnetic anisotropy materials
**Massimo Solzi,** University of Parma, Italy
**Alberto Bollero,** IMDEA, Madrid, Spain

Surface and interface effects
**Aitor Mugarza,** CIN2, Barcelona, Spain
**Rosa Alejandra Lukaszew,** College of William and Mary, Williamsburg, United States

Exchange bias and exchange springs
**Axel Hoffmann,** Argonne National Lab., Illinois, United States
**Rafael Morales,** University of Basque Country, Bilbao, Spain

Theory and modeling
**Alessandra Continenza,** University dell'Aquila, Italy
**Kalliopi.N. Trohidou,** NCSR Democritos, Athens, Greece

Hybrid nanostructures
**Alexandre Buzdin,** University of Bordeaux , France
**Alexander Granovsky,** Moscow State University, Russia

Arrays of magnetic nanostructures
**Caroline Ross,** MIT, United States
**John Xiao,** University of Delaware, United States

Magnetic nanodots, nanowires and nanotubes
**Joao P. Araujo,** Porto University, Portugal
**Kristen Buchanan,** Colorado St. University, United States

Manetophotonics and magnetoplasmonics
**Vasily Temnov**, CNRS Le Mans, France
**Vladimir Belotelov**, Lomonosov Moscow State University, Russia

## TOPIC 5: Magnetic Materials and Technologies for: energy, in formation & life

### Topic Chairs

Coordinator:
- Ricardo Ibarra, ICMA, Zaragoza, Spain
- Oliver Gutfleisch, Technische Universität Darmstadt, Germany
- Eric Fullerton, CMRR, UC San Diego, United States

### Subtopics

Soft and Hard magnetic materials
**Jose M. Barandiaran,** University of Basque Country, Bilbao, Spain
**George Hadjipanayis,** University of Delaware, United States

Nanocrystalline & amorphous materials soft magnets
Ferrites, Garnets and oxide materials
Rare-earth hard magnetic materials
Intermetallic & other hard magnets
Nanostructured and composite hard magnetic materials
Coercivity Mechanisms

Materials for Energy applications
**Franca Albertini ,** CNR, Parma, Italy
**Victorino Franco,** University of Seville, Spain

Applications of high performance soft and hard materials
Energy harvesting materials
Shape memory alloys
Magnetocaloric materials and magnetic refrigeration

Magnetic Devices and Novel materials
**Cristina Gomez-Polo,** Publ. University of Navarra, Spain
**Frederic Petroff,** Unité Mixte de Physique CNRS/Thales, Paris, France

Magnetostrictive devices
Magnetic sensors
Microwave materials and devices
Novel magnetic materials & Devices
Novel spintronic materials and devices

Magnetic information storage, memories and computation
**Jose M. De Teresa,** ICMA, CSIC-Universidad de Zaragoza, Spain
**SUnited Statesna Cardoso,** INESC-MN, Lisbon, Portugal

Advanced and bit-patterned recording media
Energy assisted magnetic recording
Magnetoresistive materials for novel read sensors
Magnetic random access memories
Magnetic information processing and logics

Applied magnetism of organic compounds and Biomedical applications
**Gerardo Goya,** INA, Zaragoza, Spain
**Juergen Kosel,** KAUST, Saudi Arabia
Magnetism in macromolecules and polymers
Magnetic nanoparticles: drug delivery image enhancement and magnetic hyperthermia
Magnetism in biological media, magnetic effects and biomedicine applications
Magnetic transducers and field sensors in biomedicine

Measuring techniques and instrumentation
**Clemence Ritter,** ILL, Grenoble, France
**Agustina Asenjo,** Inst. Ciencia de Materiales de Madrid-CSIC, Spain
Magnetometry at the nano-scale
Magnetic microscopies, scanning probes
Magnetism & superconductivity by large facilities (neutron, synchrotron)
Instrumentation and interdisciplinary technologies

# Scientific Programme

# SUNDAY, 5 JULY

## SPECIAL LECTURE TRENDS IN MAGNETISM

**16:00-17:20 (AUDITORIUM)**

**Chair:** Sam Bader

16:00-17:20

**Highlights from 30 years of Magnetism**

Dominique Givord
*CNRS/Univ. Grenoble-Alpes, Institut Néel, Grenoble, France*

**A quick review of Magnetism in Spain**

Antonio Hernando
*Instituto de Magnetismo Aplicado-Universidad Complutense, Madrid, Spain*

# MONDAY, 6 JULY

## OPENING CEREMONY

**08:30-09:00 (AUDITORIUM)**

## PLENARY-1

**09:00-10:00 (AUDITORIUM)**

**Chair:** Sadamichi Maekaewa

09:00-10:00 **PLENARY 1 - Continuous Time Quantum Monte Carlo methods: from quantum impurity models to real materials.**
Andrew J. Millis
*Department of Physics, Columbia University, New York, United States*

## MO.SYM_TOPOLOGICAL MATTER

**10:00-13:00 (AUDITORIUM)**

**Chair:** Ernst Bauer

10:00-10:30 **MO.SYM_1 - Topological Magnetism**
Roderich Moessner
*Mpi-Pks, Dresden, Germany*

10:30-11:00 **MO.SYM_2 - Low carrier concentration crystals of the topo logical insulator Bi2-xSbxTe3-ySey:a magnetotransport study**
Anne De Visser
*University of Amsterdam, Amsterdam, The Netherlands*

12:00-12:30 **MO.SYM_4 - Topology in Heusler compounds – from a materials perspective**
Claudia Felser
*Max Planck Institute Chemical Physics For Solids, Dresden, Germany*

12:30-13:00 **MO.SYM_5 - A spin-anisotropic harmonic honeycomb iridate**
Ross McDonald
*Los Alamos National Laboratory, Los Alamos, United States*

## SPECIAL LECTURE

**13:00 - 13:30 (AUDITORIUM)**

**Chair:** Masamitsu Hayashi

13:00 - 13:30 **Highly Efficient Current Induced Domain Wall Motion in Synthetic Antiferromagnetic Racetracks**
Stuart Parkin
*Max Planck Institute of Microstructure Physics, Halle, Germany*

## MO.A.1_SUPERCONDUCTIVITY AND MAGNETISM, INCLUIDING EXOTIC SUPERCONDUCTIVITY

**10:00-11:30 (ROOM J)**

**Chair:** Laura Greene

10:00-10:30

**MO.A.1_I1 - Superconductivity of Sr2RuO4: Current Challenges**

Y. Maeno
*Kyoto University, Kyoto, Japan*

10:30-10:45

**MO.A.1_O2 - Controlling Superconductivity by Tunable AFM QCPs in the Heavy Fermion Compound CeRhIn5**

T. Park [1], S. Seo [1], E. Park [1], E.D. Bauer [2], F. Ronning [2], J.N. Kim [3], J.H. Shim [3], J.D. Thompson[2]
*1. Sungkyunkwan University, Seoul, Republic of Korea*
*2. Los Alamos National Laboratory, New Mexico, United States*
*3. POSTECH, Gyeongsangbuk-do, Republic of Korea*

10:45-11:00

**MO.A.1_O3 - Antiferromagnetic Order and Spatial Modulation in High Field Superconducting Phase of CeCoIn5**

R. Ikeda [1], Y. Hatakeyama [1]
*1. Department Of Physics, Kyoto University, Kyoto, Japan*

11:00-11:15

**MO.A.1_O4 - Heat capacity measurements on UBe13 in rotated magnetic fields: anisotropic response in the normal state and the absence of nodal quasiparticles**

Y. Shimizu [1], S. Kittaka [1], T. Sakakibara [1], Y. Haga [2], E. Yamamoto [2], H. Amitsuka [3], Y. Tsutsumi [4], K. Machida [5]
*1. The Institute for Solid State Physics, The University of Tokyo, Tokyo, Japan*
*2. Advanced Science Research Center, Japan Atomic Energy Agency, Ibaraki, Japan*
*3. Graduate School of Science, Hokkaido University, Hokkaido, Japan*
*4. Condensed Matter Theory Laboratory, RIKEN, Saitama, Japan*
*5. Department of Physics, Okayama University, Okayama, Japan*

11:15-11:30

**MO.A.1_O5 - Pr$_2$Pt$_3$Ge$_5$ - A novel magnetic Superconductor?**

J. Gavilano
*1. Laboratory for Neutron Scattering and Imaging, Paul Scherrer Institut, Villigen, Switzerland*

## MO.B.1_MAGNETIC NANOPARTICLES

**10:00-11:30 (ROOM F)**

**Chair:** Jan Vogel

10:00-10:30 **MO.B.1_I1 - Antiferromagnetic coupling in ferrimagnetic hard-soft core/shell nanoparticles**

M. Estrader[1], A. López-Ortega[2], A. Juhin[3], S. Estradé[4,5], I. Golosovsky[6], M. Sikora[7], C. Carvallo[3], G. Salazar-Alvarez[8], M. Vasilakaki[9], K. N. Trohidou[9], M. Varela[10], D.C. Stanley[11], M.J. Pechan[11], P. Sainctavit[3], P. Glatzel[12], D. J. Keavney[13], F. Peiró[4], Suriñach[14], M.D. Baró[14], J. Nogués[15]

*1.Dept. de Química Inorgànica, Univ. de Barcelona, Barcelona, Spain*
*2.INSTM and Dept. di Chimica "U. Schi", Univ. degli Studi di Firenze, Firenze, Italy*
*3. IMPMC, UMR CNRS 7590, Univ. Pierre et Marie Curie, Paris, France*
*4. LENS, MIND-IN2UB, Dept. d'Electrònica, Univ. de Barcelona, Barcelona, Spain*
*5. TEM-MAT, CCiT, Univ. de Barcelona, Barcelona, Spain.*
*6. St. Petersburg Nuclear Physics Institute, Gatchina, St. Petersburg, Russia.*
*7. AGH-Univ. of Science and Technology, PACS & ACMiN, Kraków, Poland*
*8. Dept. of Materials and Environmental Chemistry, Stockholm Univ., Stockholm, Sweden*
*9. INN, NCSR "Demokritos", Attiki, Greece.*
*10. Materials Science & Technology Division, Oak Ridge National Laboratory. Oak Ridge, United States and Univ. Complutense de Madrid, Madrid, Spain*
*11. Department of Physics, Miami Univ., Oxford, Ohio, United States*
*12. ESRF, BP220, Grenoble, France*
*13. Advanced Photon Source, Argonne National Laboratory, Argonne, United States*
*14. Dept. de Física, Univ. Autònoma de Barcelona, Bellaterra, Spain*
*15. ICREA and ICN2 - Institut Catala de Nanociencia i Nanotecnologia, Campus UAB, Bellaterra, Spain*

10:30-10:45 **MO.B.1_O2 - Core/shell bimagnetic nanoparticles: magnetic interactions and magnetization reversal**

G. Lavorato [1], E. Lima Jr [1], D. Peddis [2], D. Tobia [1], H. Troiani [1], E. Agostinelli [2], D. Fiorani [2], R. Zysler [1], E. Winkler [1]

*1. Centro Atómico Bariloche CNEA-CONICET, Bariloche, Argentina*
*2. Istituto di Struttura della Materia, CNR, Roma, Italy*

10:45-11:00 **MO.B.1_O3 - Surface anisotropy and tunable exchange bias in core/shell and hollow magnetic nanoparticles**

H. Srikanth [1], K. Stojak Repa [1], Z. Nemati [1], H. Khurshid [1], J. Alonso [1,2], M. Phan [1]

*1. University of South Florida, Tampa, United States*
*2. BC Materials, Derio, Spain*

11:00-11:15 **MO.B.1_O4 - Synthesis and Magnetic Properties of CoPt(core)-Fe/FeCo(shell) Nanoparticles**

J. Cuya [1], H. Miyamura [1], S. Ishio [2], J. Balachandran [1]
*1. The University of Shiga Prefecture, Shiga Prefecture, Japan*
*2. Akita University, Akita, Japan*

11:15-11:30 **MO.B.1_O5 - Optimizing the Magnetic Properties of inverse Antiferromagnetic-Core / Ferrimagnetic-Shell Nanoparticles**

M. Vasilakaki [1], K. Trohidou [1], J.Nogués [2]
*1. Institute of Nanoscience and Nanotechnology, NCSR "Demokritos", Aghia Paraskevi, Attiki, Greece*
*2. ICREA and ICN2 - Institut Catala de Nanociencia i Nanotechnologia, Campus UAB, Bellaterra, Spain*

## MO.C.1_MAGNETIC THIN FILMS AND MULTILAYERS

**10:00-11:30 (ROOM H1)**

**Chair:** Jesus M. González

10:00-10:30 **MO.C.1_I1 - Emergent Interfacial Phenomena in Magnetic Complex Oxide Heterostructures**

S. G.E. Te Velthuis[1]
*1. Argonne National Laboratory, Argonne, United States*

10:30-10:45 **MO.C.1_O2 - Roughness influence in the barrier quality of ferroelectric/ferromagnetic tunnel junctions, model and experiments**

M. Sirena [1], J. Gonzales Sutter [1], L. Avilés Félix [1], L. Beatriz Steren [2], R. Bernard [3], J. Villegas [3], J. Briatico [3], N. Bergeal [4], A. Zimmers [4], J. Lesueur [4]
*1. Laboratorio de Resonancias Magnéticas & Instituto Balseiro (CNEA & UNCuyo), Bariloche, Argentina*
*2. Centro Atomico Constituyentes, Buenos Aires, Argentina*
*3. Unité Mixte de Physique CNRS/THALES, Université Paris Sud, Palaiseau Cedex, France*
*4. Laboratoire de Physique et d'etude des Matériaux, Paris, France*

10:45-11:00 **MO.C.1_O3 - Magneto-electric coupling in Ca3CoMnO6 thin films**

J. Saha [1], G. Sharma [1], S. Patnaik [1]
*1. Jawaharlal Nehru University, New Delhi, India*

11:00-11:15 **MO.C.1_O4 - Magnetic and Dielectric Properties of BaTiO3-Co Nano-composite Films**

Y. Zhang [1], N. Kobayashi [2], S. Ohnuma [1,2], M. Nose [3], H. Masumoto [1]

*1. Tohoku University, Miyagi Prefecture, Japan*
*2. Research Institute for Electromagnetic Materials, Tokai-Mura, Japan*
*3. University of Toyama, Toyama Prefecture, Japan*

11:15-11:30 **MO.C.1_O5 - Temperature Dependent Transport Measurements of Epitaxially Grown Copper Manganese Arsenide**

V.A. Hills [1], P. Wadley [1], R. Campion [1], V. Novak [2], K. Edmonds [1], B. Gallagher [1], T. Foxon [1], T. Jungwirth [1,2]
*1. School of Physics and Astronomy, University of Nottingham, Nottingham, United Kingdom*
*2. Institute of Physics ASCR, v.v.i., Prague, Czech Republic*

## MO.D.1_MATERIALS FOR ENERGY APPLICATIONS

**10:00-11:30 (ROOM H2)**

**Chair:** Ramon Burriel

10:00-10:30 **MO.D.1_I1 - Magnetic shape memory alloys for energy applications**

L. Mañosa [1], A. Planes [1]
*1. Universitat de Barcelona, Barcelona, Spain*

10:30-10:45 **MO.D.1_O2 - Tuning magnetic properties of isotropic ferrite powders as a feasible alternative for permanent magnet applications**

F. J. Pedrosa [1,2], K. Golasinski [1], J. Rial [1], A. Quesada [3], F. Rubio-Marcos [3], M. N. Guzik [4], S. Deledda [4], J.F. Fernández [3], J. Camarero [1,5], A. Bollero [1]
*1. IMDEA Nanoscience, Madrid, Spain*
*2. Ingeniería Magnética Aplicada, IMA S.L., Barcelona, Spain*
*3. Electroceramic Department, Instituto de Cerámica y Vidrio, CSIC, Madrid, Spain*
*4. Institute for Energy Technology, Kjeller, Norway*
*5. Dep. Física de la Materia Condensada, Instituto Nicolás Cabrera, UAM, Madrid, Spain*

10:45-11:00 **MO.D.1_O3 - Phase Formation and Magnetic Properties of the L10 Phase in Mn-Ga Alloys**

T. Mix [1,2], K. Müller [1], T.G. Woodcock [1], L. Schultz [1,2]
*1. IFW Dresden, Institute for Metallic Materials, Dresden, Germany*
*2. Department of Physics, TU Dresden, Dresden, Germany*

11:00-11:15 **MO.D.1_O4 - Atomic-Scale Characterisation of Phase Boundaries in Hot Deformed Nd-Fe-Co-B-Ga Magnets Infiltrated with a Nd-Cu Eutectic**

T.G. Woodcock [1], Q.M. Ramasse [2], T. Shoji [3], M. Yano [3], A. Kato [3], O. Gutfleisch [4]
*1. IFW Dresden, Dresden, Germany*
*2. SuperSTEM Laboratory, Warrington, United Kingdom*
*3. Toyota Motor Corporation, Prefecture Aichi, Japan*
*4. TU Darmstadt, Darmastadt, Germany*

11:15-11:30 **MO.D.1_O5 - Bi doped Mn2Sb: a novel rare-earth free permanent magnet material**

K. Aanand [1], N. Singh [1], N. Chirstopher [1], A. Gupta [1], A. Dhar [1]
*1. National Physical Laboratory, Middlesex, United Kingdom*

## MO.E.1_MEASURING TECHNIQUES AND INSTRUMENTATION

**10:00-11:30 (ROOM H3)**

**Chair:** Ulrike Wolf

10:00-10:30 **MO.E.1_I1 - Soft X-ray photoemission spectro-microscopy at the ALBA Synchrotron: applications in Magnetism**

L. Aballe [1], M. Foerster [1], E. Pellegrin [1], J. Nicolas [1], S. Ferrer [1]
*1. ALBA Synchrotron Light Facility, Cerdanyola, Spain*

10:30-10:45 **MO.E.1_O2 - Ferromagnetic Nuclear Resonance for studying materials for spintronics, optics, and catalysis**

C. Meny [1], K. Leguen [2], J.M. Andre [2], P. Jonnard [2], D. Halley [1], J.F. Dayen [1], Y. Liu [3], C. PhamHuu [3]
*1. Institut de Physique et Chimie des Matériaux de Strasbourg (IPCMS), University of Strasbourg, Strasbourg, France*
*2. Sorbonne Universités, UPMC Univ. Paris 06, Laboratoire de Chimie Physique-MatiÞre et Rayonnement, Paris, France*
*3. Institut de Chimie et Procédés pour l'Energie, l'Environnement et la Santé (ICPEES), University of Strasbourg, ECPM, Strasbourg, France*

10:45-11:00 **MO.E.1_O3 - AGFM for magnetic characterization of samples in A.C. magnetic field**

M. Pérez [1], R. Ranchal [2], I. De Mendizabal [1], P. Cobos [1], J.L. Mesa [3], M. Díaz [3], C. Aroca [1]
*1. Universidad Politecnica de Madrid (ISOM), Madrid, Spain*
*2. Universidad Complutense de Madrid, Madrid, Spain*
*3. Instituto Nacional de Técnicas Aeroespacial (INTA), Madrid, Spain*

11:00-11:15 **MO.E.1_O4 - Towards quantitative magnetic measurements with atomic spatial resolution**

J. Rusz [1], J.C. Idrobo [2], J. Spiegelberg [1], A. Edström [1]
*1. Department of Physics And Astronomy, Uppsala University, Uppsala, Sweden*
*2. Center for Nanophase Materials Sciences, Oak Ridge National Laboratory, Oak Ridge, United States*

11:15-11:30 **MO.E.1_O5 - Bidirectional and co-resonant quantitative magnetic force microscopy sensors**

T. Muehl [1], C.F. Reiche [1], J. Koerner [1], S. Vock [1], V. Neu [1], L. Schultz [1,2], B. Buechner [1,3]
*1. IFW Dresden, Dresden, Germany*
*2. Institut Für Werkstoffwissenschaft, Dresden, Germany*
*3. Leibniz Institute For Solid State and Materials Research, Dresden, Germany*

## MO.F.1_SEMICONDUCTOR SPINTRONICS

**10:00-11:30 (ROOM A)**

**Chair:** Luis Hueso

10:00-10:30 **MO.F.1_I1 - Antiferromagnetic spintronics**

T. Jungwirth [1]
*1. Institute Of Physics ASCR And University Of Nottingham, Prague, Czech Republic*

10:30-10:45 **MO.F.1_O2 - High temperature spin dynamics studied by solid state nuclear resonance and electron paramagnetic resonance in 29Si:B crystals**

R. Morgunov [1], O. Koplak [1], A. Talantcev [1]
*1. Institute of Problems of Chemical Physics RAS, Moscow, Russian Federation*

10:45-11:00 **MO.F.1_O3 - Amplification of spin polarization using electro-nuclear spin-spin transistor**

K. Olejník [1], R. Campion [2], Z. Soban; [1], V. Novák [1], T. Jungwirth [1,2]
*1. Institute of Physics, ASCR, v.v.i., Prague, Czech Republic*
*2. School of Physics and Astronomy, University of Nottingham, Nottingham, United Kingdom*

11:00-11:15 **MO.F.1_O4 - Novel Bulk Form Diluted Magnetic Semiconductors with Decoupled Charge and Spin Doping: Synthesis and NMR Investigation**

F. Ning [1]
*1. Zhejiang University, Hangzhou, China*

11:15-11:30 **MO.F.1_O5 - Spin-to-Charge Conversion in 2D Electron Gas at LaAlO3/SrTiO3 Interfaces**

Y. Fu [1], E. Lesne [2], J.C. Rojas-Sánchez [2], S. Oyarzun [1], N. Reyren [2], E. Jacquet [2], V. Cros [2], G. Desfonds [1], S. Gambarelli [1], J.P. Attané [1]
*1. Institut Nanosciences et Cryogénie, CEA Grenoble, France*
*2. Unité Mixte de Physique CNRS/Thales, and Université Paris-Sud 11, Palaiseau, France*
*3. Peter Grünberg Institute, and Institute for Advanced Simulation, Jülich, Germany*

## MO.G.1_EXCHANGE BIAS AND EXCHANGE SPRINGS

**10:00-11:30 (ROOM B1-B3)**

**Chair:** Rafael Morales

10:00-10:30 **MO.G.1_I1 - A study of Antiferromagnetic/Ferromagnetic systems using X-ray Magnetic Dichroism**

Z. Q. Qiu [1]
*1. University Of California At Berkeley, Berkeley, United States*

10:30-10:45 **MO.G.1_O2 - Topologically protected magnetic helix for energy storage**

Elena Vedmedenko [1]
*1.University Of Hamburg, Hamburg, Germany*

10:45-11:00 **MO.G.1_O3 - Atomistic Spin Dynamics and Effective Models of AFM/FM Multilayer Systems**

I. Stockem [1], C. Schröder [1], G. Reiss [2]
*1. Department of Engineering Sciences and Mathematics, University of Applied Sciences Bielefeld, Bielefeld, Germany*
*2. Department of Physics, Center for Spinelectronic Materials and Devices, Bielefeld University, Bielefeld, Germany*

11:00-11:15 **MO.G.1_O4 - Enhancement of Blocking Temperature of Cr2O3/Co Perpendicular Exchange Coupling System with Thin Cr2O3 Layer**

T. Nozaki [1], N. Shimomura [2], S.P. Pati [3], M. Sahashi [4]
*1. Tohoku University, Miyagi Prefecture, Japan*

11:15-11:30 **MO.G.1_O5 - A quantitative description of the Bias-Field and Coercive field in exchange-bias systems. Application to Mn2Au**

D. Givord [1,2], V.M.T.S. Barthem [2], A.Y. Ramos [1], H.C.N. Tolentino [3], L.E. Fernández-Outon [4], F. Herrera-Aragón [5], W.A.A. Macedo [5], A. Bernand-Mantel [1], L. Ranno [1]
*1. CNRS/Univ. Grenoble-Alpes, Institut Néel, Grenoble, France*
*2. Instituto de Fisica, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil*
*3. Laboratorio Nacional de Luz Sincrotron, LNLS/CNPEM, Campinas, Brazil*
*4. Departamento de Fisica, Universidade Federal de Minas Gerais, Belo Horizonte, Brazil*
*5. Laboratorio de Física Aplicada, Centro de Desenvolvimento da Tecnologia Nuclear, Belo Horizonte, Brazil*

## MO.H.1_SPIN-TRANSFER TORQUE AND SPIN-TRANSFER OSCILLATORS

**10:00-11:30 (ROOM D1-D3)**

**Chair:** Adriana I. Figueroa

10:00-10:30 **MO.H.1_I1 - Spin-torque nanodevices for bio-inspired computing**

J. Grollier [1]
*1. CNRS Thales, Palaiseau, France*

10:30-10:45 **MO.H.1_O2 - Current-induced spin orbit torques and magnetization switching in antiferromagnet/ ferromagnet/oxide structures**

B.   Park [1]
*Kaist, Daejeon, Republic Of Korea*

10:45-11:00 **MO.H.1_O3 - Spin-orbit torque switching in a ferromagnet/antiferromagnet bilayer system**

S. Fukami [1,2], C. Zhang [3], S. DuttaGupta [3], H. Ohno [1,2,3,4]
*1. CSIS, Tohoku University, Miyagi Prefecture, Japan*
*2. CIES, Tohoku University, Miyagi Prefecture, Japan*
*3. LNS, RIEC, Tohoku University, Miyagi Prefecture, Japan*
*4. WPI-AIMR, Tohoku Univeversity, Miyagi Prefecture, Japan*

11:00-11:15 **MO.H.1_O4 - Magnetization manipulation by spin oribitronic effects in permalloy/heavy metal doped copper bilayers**

M. Gabor [1], C. TiUnited Statesn [1], M. Belmeguenai [2], F. Zighem [2], S. Colis [3], D. Lacour [4], M. Hehn [4]
*1. Center for Superconductivity, Spintronics and Surface Science, Technical University of Cluj-Napoca, Cluj-Napoca, Romania*
*2. Laboratoire des Sciences des Procedes et des Materiaux, CNRS-Universite Paris XIII, Villetaneuse, France*
*3. Institut de Physique et Chimie des Materiaux de Strasbourg (IPCMS), UMR 7504 UDS-CNRS and Universite de Strasbourg (UDS-ECPM), Strasbourg , France*
*4. Institut Jean Lamour, CNRS, Universite de Lorraine, Vandoeuvre, France*

11:15-11:30 **MO.H.1_O5 - Spin-orbit torque induced magnetization switching in Ta/CoFeB/MgO heterostructure with a diameter down to 30 nm**

C. Zhang [1], S. Fukami [2,3], H. Sato [2,3], F. Matsukura [1,2,4], H. Ohno [1,2,3,4]
*1. Laboratory for Nanoelectronics and Spintronics, Research Institute of Electrical Communication, Tohoku University, Miyagi Prefecture, Japan*
*2. Center for Spintronics Integrated Systems, Tohoku University, Miyagi Prefecture, Japan*
*3. Center for Innovative Integrated Electronic Systems, Tohoku University, Miyagi Prefecture, Japan*
*4. WPI Advanced Institute for Materials Research, Tohoku University, Miyagi Prefecture, Japan*

## MO.I.1_LOW DIMENSIONAL SYSTEMS AND QUANTUM SPIN HALL

**10:00-11:30 (ROOM D4-D6)**

**Chair:** Antoni García Santiago

10:00-10:30

**MO.I.1_I1 - Room-temperature edge magnetism in graphene nanoribbons**

L. Tapaszto [1], G. Magda [1], I. Hagymasi [2], P. Vancso [1], C. Hwang [3], L. P Biro [2]
*1. Hungarian Academy of Sciences - 2D Nanoelectronics Research Group, Budapest, Hungary*
*2. Wigner Research Centre for Physics - Institute of Solid State Physics and Optics, Budapest, Hungary*
*3. Korea Research Institute of Standards and Science - Center for Nanometrology, Daejeon, Republic of Korea*

10:30-10:45

**MO.I.1_O2 - Emergent one-dimensional magnetism in a metal and a semiconductor.**

I. Zaliznyak [1], A. Savici [2], O. Garlea [2], S. Chang [3], R. Hu [1], C. Petrovic [1]
*1. CMPMSD, Brookhaven National Laboratory, New York City, United States*
*2. NSD, Oak Ridge National Laboratory,Oak Ridge, United States*
*3. NIST Center for Neutron Research, Gaithersburg, United States*

10:45-11:00

**MO.I.1_O3 - Longitudinal and Transverse Zeeman Ladders in the Ising-Like Chain Antiferromagnet BaCo2V2O8**

S. Petit [1], B. Grenier [2], V. Simonet [3], L.P. Regnault [2], S. Raymond [2], B. Canals [3], E. Canevet [4], C. Berthier [5], P. Lejay [3]
*1. LLB, CEA-CNRS, Gif Sur Yvette, France*
*2. CEA, INAC-SPSMS, Grenoble, France*
*3. CNRS, Institut Néel, Grenoble, France*
*4. Institut Laue-Langevin, CS 20156, Grenoble, France*
*5. CNRS, Laboratoire National des Champs Magnétiques Intenses, Grenoble, France*

11:00-11:15

**MO.I.1_O4 - Pressure-induced quantum phase transitions in low-dimensional organic quantum magnets**

J. Müller [1], G. Perren [1], A. Mannig [1], A. Zheludev [1]
*1. ETH Zürich, Zürich, Switzerland*

11:15-11:30

**MO.I.1_O5 - Phonon-modulated magnetic interactions and spin Tomonaga-Luttinger liquid in the p-orbital antiferromagnet CsO2**

M. Klanjsek [1,2], D. Arcon [1,3]
*1. Jozef Stefan Institute, Ljubljana, Slovenia*
*2. EN-FIST Centre of Excellence, Ljubljana, Slovenia*
*3. Faculty of Mathematics and Physics, University of Ljubljana, Ljubljana, Slovenia*

## MO.A.2_SUPERCONDUCTIVITY AND MAGNETISM, INCLUIDING EXOTIC SUPERCONDUCTIVITY

**12:00-13:30 (ROOM J)**

**Chair:** Yoshiteru Maeno

12:00-12:30 **MO.A.2_I1 - Phase competition and Fermi surface reconstruction by charge density-wave order in cuprate superconductors**

N. Doiron-Leyraud [1], G. Grissonanche [1], S. Badoux [2], O. Cyr-Choinière [1], R. Liang [3,4], D. Bonn [3,4], W. Hardy [3,4], B. Vignolle [2], C. Proust [2,4], L. Taillefer [1,3]
*1. Université de Sherbrooke, Sherbrooke, Canada*
*2. Laboratoire National des Champs Magnétiques Intenses, Toulouse, France*
*3. University of British Columbia, Vancouver, Canada*
*4. Canadian Institute for Advanced Research, Toronto, Canada*

12:30-12:45 **MO.A.2_O2 - The evolution of microwave conductivity in YBa2Cu3O6+x across the superconducting dome**

J. Baglo [1], J. Day [2], P. Dosanjh [2], R. Liang [2], W. Hardy [2], D. Bonn [2]
*1. Cavendish Laboratory, University of Cambridge, Cambridge, United Kingdom*
*2. Department of Physics and Astronomy, University of British Columbia, Vancouver, Canada*

12:45-13:00 **MO.A.2_O3 - Magnetoresistance in the pseudogap phase of the high-$T_c$ cuprate $HgBa_2CuO_{4+d}$**

M. Chan [1], K. Modic [1], B. Ramshaw [1], R. McDonald [1], N. Harrison [1], Y. Li [2], Y. Tang [2], M. Greven [2], S. Badoux [3], W. Tabis [2], B. Vignolle [3], J. Béard [3], X. Zhao [4], N. Barisic [5]
*1. National High Magnetic Field Laboratory, Los Alamos, United States*
*2. University of Minnesota, Minneapolis, United States*
*3. Laboratoire National des Champs MagnÚtiques Intenses, Toulouse, France*
*4. State Key Lab of Inorganic Synthesis and Preparative Chemistry, Jilin University, China*
*5. Institute of Solid State Physics, Vienna University of Technology, Austria*

13:00-13:15 **MO.A.2_O4 - Observation of Charge Order in Electron-doped Cuprates**

R. Greene [1], E. da Silva Neto [2], R. Comin [2], Y. Jiang [1], J. Higgins [1], A. Damascelli [2]
*1. University of Maryland, College Park, United States*
*2. University of British Columbia, Vancouver, Canada*

13:15-13:30 **MO.A.2_O5 - Hybridization and formation of coherent heavy fermions: Non-Fermi liquid detection with point contact spectroscopy**

L.H. Greene [1], S. Narasiwodeyar [1], M. Dwyer [1], W.K. Park [1], P.C. Canfield [2], E.D. Bauer [3], P.H. Tobash [3], R.E Baumbach [3], F, Ronning [3], J.L. Sarrao [3]
*1. University of Illinois at Urbana-Champaign, Champaign, United States*
*2. Ames Laboratory and Iowa State University, Ames, United States*
*3. Los Alamos National Laboratory, New Mexico, United States*

## MO.C.2_MAGNETIC THIN FILMS AND MULTILAYERS

**12:00-13:30 (ROOM H1)**

**Chair:** Sebastian Faehler

12:00-12:30 **MO.C.2_I1 – Magnetic shape memory nano-disks: effects of lateral confinement on magnetism, martensitic behaviour and microstructure**

F. Albertini [1], M. Campanini [1], L. Nasi [1], F. Casoli [1], P. Ranzieri [1], S. Fabbrici [1,2], V. Chiesi [1], C. Magen [3], V. Grillo [4], F. Celgato [5]
*1. IMEM-CNR, Parma, Italy*
*2. MIST E-R Laboratory, Bologna, Italy*
*3. LMA-INA, ARAID, University of Zaragoza, Spain*
*4. NANO-CNR, Modena, Italy*
*5. INRIM, Torino, Italy*

12:30-12:45 **MO.C.2_O2 - Tuning magnetic anisotropy by structural strain in La2CoMnO6 thin films**

R. Galceran [1], L. Balcells [1], J. Cisneros-Fernández [1], J. Roqueta [2], L. López-Mir [1], B. Bozzo [1], C. Frontera [1], B. Martínez [1]
*1. Instituto de Ciencia de Materiales de Barcelona, ICMAB – CSIC, Barcelona, Spain*
*2. Institut Català de Nanociència i Nanotecnologia, ICN2 (CSIC, CERCA), Barcelona, Spain*

12:45-13:00 **MO.C.2_O3 - Stabilization of helical magnetic structures in thin multilayers**

L. Dzemiantsova [1,2], G. Meier [1,3], R. Röhlsberger [1,2]
*1. The Hamburg Centre of Ultrafast Imaging, Hamburg, Germany*
*2. Deutsches Elektronen Synchrotron, Hamburg, Germany*
*3. Max-Planck Institute for the Structure and Dynamics of Matter, Hamburg, Germany*

13:00-13:30 **MO.C.2_I4 - Shape-Critical Properties of Patterned Permalloy Thin Films**

R. Shull [1], Y.P. Kabanov [2], V. Gornakov [2], A. Chen [1], V. Nikitenko [2]
*1. National Institute of Standards and Technology, United States*
*2. Russian Academy of Science, Saint Petersburg, Russian Federation*

## MO.D.2_MATERIALS FOR ENERGY APPLICATIONS

**12:00-13:45 (ROOM H2)**

**Chair:** Franca Albertini

12:00-12:30 **MO.D.2_I1 - Advances in magnetocaloric characterization**

M. Solzi [1], G. Porcari [1], F. Cugini [1]
*1. Dipartimento di Fisica e Scienze della Terra - Università di Parma, Parma, Italy*

12:30-12:45 **MO.D.2_O2 - Quasi-zero volume change 1st order phase transition on (Mn,Fe)2(P,A) A = Ge, Si magnetocaloric compounds**

L. Caron [1,2], G. Porcari [2,3], X.F. Miao [2], N.T. Trung [2], N.H. Dung [4], M. Solzi [3], E. Brück [2]
*1. Max Planck Institute for Chemical Physics of Solids, Dresden, Germany*
*2. Delft University of Technology, Delf, The Netherlands*
*3. Parma University, Parma, Italy*
*4. Institute Neel, Grenoble, France*

12:45-13:00 **MO.D.2_O3 - Gd-Zn biphasic magnetic composites synthesized in a single preparation step: increasing refrigerant capacity without decreasing magnetic entropy change**

J.Y. Law [1], L.M. Moreno-Ramírez [1], J.S. Blázquez [1], V. Franco [1], A. Conde [1]
*1. Sevilla University, Seville, Spain*

13:00-13:15 **MO.D.2_O4 - Thermal Conductivity study of (Mn-Fe)$P_{1-x}Si_x$ magnetocaloric materials with first and second order phase transitions**

A. Davarpanah [1], X.F. Miao [2], L. Caron [2], E. Bruck [2], J.S. Amaral [1], V.S. Amaral [1]
*1. Department of Physics / CICECO - Aveiro Institute of Materials, University Of Aveiro, Aveiro, Portugal*
*2. Department of Radiation Science & Technology, Delft University of Technology, Delft, Netherlands*

13:15-13:30 **MO.D.2_O5 - Conventional and rotating magnetocaloric effects in RAl2 (R=Ho and Nd)**

N. Antunes De Oliveira [1], J. Caro Patiño [1], P. von Ranke [1]
*1. Universidade do Estado do Rio de Janeiro, Rio de Janeiro, Brazil*

13:30-13:45 **MO.D.2_O6 -Magnetic entropy change in materials with first- order magnetic transitions under cycling**

B. Kaeswurm
*1. Institut für Geo - und Materialwissenschaften, Technische Universität Darmstadt, Darmstadt, Germany*

## MO.E.2_MEASURING TECHNIQUES AND INSTRUMENTATION

**12:00-13:30 (ROOM H3)**

**Chair:** Clemence Ritter

12:00-12:15

**MO.E.2_O1 - Sensitive nanoSQUIDs for magnetization reversal measurements on single magnetic nanoparticles, nanotubes and nanowires**

M.J. Martínez-Pérez [1], R. Wölbing [1], A. Buchter [2], M. Wyss [2], C. Reiche [3], T. Mühl [3], B. Müller [1], T. Schwarz [1], A. Zorin [4], B. Büchner [3], J. Sesé [8], A. Fontcuberta i Morral [5], D. Grundler [6,7], R. Kleiner [1], M. Poggio [2], D. Koelle [1]
*1. Physikalisches Institut, Universität Tübingen, Tübingen, Germany*
*2. Dept. of Physics, Univ. Basel, Basel, Switzerland*
*3. IFW Dresden, Dresden, Germany*
*4. PTB Braunschweig, Braunschweig, Germany*
*5. EPFL LaUnited Statesnne, LaUnited Statesnne, Switzerland*
*6. TU München, Munich, Germany*
*7. STI, EPFL LaUnited Statesnne, LaUnited Statesnne, Switzerland*
*8. Dpto. de Fisica de la Materia Condensada, Zaragoza, Spain*

12:15-12:30

**MO.E.2_O2 - Three-Axis Low Energy Neutron Spectroscopy at the Institut Laue-Langevin**

M. Boehm [1], S. Roux [1], J. Kulda [1], V. Sechovsky [2], P. Svoboda [2], J. Saroun [3], P. Steffens [1]
*1. Institut Laue-Langevin, Grenoble, France*
*2. Faculty of Mathematics and Physics, Charles University, Prague, Czech Republic*
*3. Nuclear Physics Institute AS CR, Rez, Czech Republic*

12:30-12:45

**MO.E.2_O3 - Nanoscale magnetic imaging using Single Nitrogen Vacancy Centers in diamond**

M. Ganzhorn [1], P. Appel [1], L. Thiel [1], B. Shields [1], E. Neu [2], P. Maletinsky [1]
*1. University of Basel, Basel, Switzerland*
*2. University of Saarland, Saarbrücken, Germany*

12:45-13:00

**MO.E.2_O4 - Ultra high-resolution magnetic imaging of perpendicular magnetic recording media by near-surface alternating magnetic force microscopy**

S.R. Kapa [1], S. Okayasu [1], H. Qi [2], F. Zheng [2], G. Egawa [1], Y. Kinoshita [2], S. Yoshimura [1], H. Saito [1]
*1. Graduate School of Engineering and Resource Science, Akita University, Akita, Japan*
*2. Venture Business Laboratory, Akita University, Akita, Japan*

13:00-13:15

**MO.E.2_O5 - Development of 22 T VSM System using Novel Improvements in HTS Conductor**

J. Good [1], D. Bracanovic [1], T. Ritman-Meer [1]
*1. Cryogenic Ltd, London, United Kingdom*

| | |
|---|---|
| 13:15-13:30 | **MO.E.2_O6 - Quantitative magnetic force microscopy: A method to determine physical properties of superconducting materials** |


U. Wolff [1], F. Rhein [1], S. Vock [1], H. Stopfel [2], N. Joshi [3], S. Ízer [3], H.J. Hug [3], V. Neu [1], L. Schultz [1]
*1. IFW Dresden, Dresden, Germany*
*2. Department of Physics and Astronomy, Uppsala University, Uppsala, Sweden*
*3. Department of Physics, University of Basel, Basel, Switzerland*


## MO.F.2_ MAGNETIC NANORODS, NANOWIRES AND NANOTUBES

**12:00-13:30 (ROOM A)**

**Chair:** Nicholas Kioussis

12:00-12:30 **MO.F.2_I1 - Templated Self Assembly of Magnetic Nanostructures**


C.A. Ross [1], S. Ohja [1], N. Aimon [1], W. Bai [1], K. Tu [1]
*1. Massachusetts Institute of Technology, Cambridge, United States*


12:30-12:45 **MO.F.2_O2 - Ni80Fe20 nanodisks by nanosphere lithography for biomedical applications**


P. Tiberto [1], G. Barrera [1,2], F. Celegato [1], M. Coisson [1], G. Conta [1,2], F. Vinai [1], K. Martina [3], M. Caporaso [3], L. Serpe [3], R. Canaparo [3]
*1. Inrim, Torino, Italy*
*2. Dipartimento di Chimica, Università di Torino, Torino, Italy*
*3. Dipartimento di Scienza e Tecnologia del Farmaco, Università di Torino, Torino, Italy*


12:45-13:00 **MO.F.2_O3 –Investigation of different magnetocrystalline anisotropies with FORC analysis in electrodeposited Co-Pt nanowires**


M. Arshad
*1. Jozef Stefan Institute, LJUBLJANA, SLOVENIA*


13:00-13:15 **MO.F.2_O4 - Magnetic domain walls in interconnected nanowire structures**


D. Burn [1], M. Chadha [1], L. Cohen [1], W. Branford [1]
*1. Imperial College London, London, United Kingdom*


13:15-13:30 **MO.F.2_O5 - Segmented nanowires for multi-level high-density magnetic data storage: modeling and experimental proof-of-concept**


N. del-Valle
*1. Universitat Autònoma de Barcelona, Barcelona, Spain*

13:30-13:45 **MO.F.2_O6 - Investigation of different magnetocrystalline anisotropies with FORC analysis in electrodeposited Co-Pt nanowires**

M. Arshad [1]
*1. Jozef Stefan Institute, Ljubljana, Slovenia*

## MO.G.2_THEORY AND MODELLING

**12:00-13:30 (ROOM B1-B3)**

**Chair:** Kalliopi N. Trohidou

12:00-12:30 **MO.G.2_I1 - Accelerated Discovery of High-Performance Magnets**

S. Sanvito [1]
*1. Trinity College Dublin, Dublin, Ireland*

12:30-12:45 **MO.G.2_O2 - CLUSTER MONTE CARLO ALGORITHMS FOR FEPT HAMILTONIAN**

A. Lyberatos [1], G. Parker [2]
*1. University Of Crete, Crete, Greece*
*2. HGST,a Western Digital Company, San José, United States*

12:45-13:00 **MO.G.2_O3 - Bimodal distribution of blocking temperature for exchange-bias ferromagnetic/antiferromagnetic bilayers: a granular Monte Carlo study with less stable magnetic regions spread over the interface**

D. Ledue [1], G. Lhoutellier [1], R. Patte [1], F. Barbe [1], B. Dieny [2], V. Baltz [2]
*1. GPM UMR 6634 CNRS-Université & INSA De Rouen, Saint-Étienne-du-Rouvray, France*
*2. SPINTEC, Univ. Grenoble-Alpes/CNRS/INAC-CEA, Saint-Martin-d'Hères, France*

13:00-13:30 **MO.G.2_I4 - Vortex Nonlinear Dynamics**

C. Serpico [1], M. d'Aquino [2], S. Perna [1], A. Quercia [1]
*1. DIETI, University Of Naples Ferderico II, Naples, Italy*
*2. Department of Engineering, University of Naples Parthenope, Naples, Italy*

## MO.H.2_SPIN-TRANSFER TORQUE AND SPIN-TRANSFER OSCILLATORS

**12:00-13:30 (ROOM D1-D3)**

**Chair:** Julie Grollier

12:00-12:30 **MO.H.2_I1 - Spin pumping through a topological insulator probed by x-ray detected ferromagnetic resonance**

A.I. Figueroa [1], A.A. Baker [1,2], L.J. Collins-McIntyre [2], G. van der Laan [1], T. Hesjedal [1]
*1. Magnetic Spectroscopy Group, Diamond Light Source, Didcot, United Kingdom*
*2. Department of Physics, Clarendon Laboratory, University of Oxford, Oxford, United Kingdom*

12:30-12:45 **MO.H.2_O2 - Control of the spin-wave relaxation in a magnetic insulator of macroscopic dimensions via spin-transfer torque**

V. Lauer [1], D.A. Bozhko [0], T. Brächer [1], P. Pirro [1], V.I. Vasyuchka [1], A.A. Serga [1], M.B. Jungfleisch[3], M. Agrawal [1], Y.V. Kobljanskyj [4], G.A. Melkov [4]
*1. Fachbereich Physik and Forschungszentrum OPTIMAS, Technische Universität Kaiserslautern, Kaiserslautern, Germany*
*2. Graduate School Materials Science in Mainz, Kaiserslautern, Germany*
*3. Materials Science Division, Argonne National Laboratory, Argonne, United States*
*4. Faculty of Radio Physics, Taras Shevchenko National University of Kyiv, Kyiv, Ukraine*
*5. INNOVENT e.V. Technologieentwicklung, Jena, Germany*

12:45-13:00 **MO.H.2_O3 - Spin-torque ferromagnetic resonance in YIG/Pt nanowires**

I. Barsukov [1], C. Safranski [1], H. Lee [1], Y. Chen [1], A. Smith [1], H. Chang [2], M. Wu [2], I. Krivorotov [1]
*1. University of California, Irvine, United States*
*2. Colorado State University, Fort Collins, United States*

13:00-13:15 **MO.H.2_O4 - Low Linewidth high Frequency Spin Hall Nano-Oscillators**

A. Awad [1], P. Dürrenfeld [1], A. Houshang [1], E. Iacocca [1], M. Ranjbar [1], R. Dumas [1], J. Akerman [1,2]
*1. Department of Physics, University of Gothenburg, Göteborg, Sweden*
*2. Materials Physics, School of ICT, KTH-Royal Institute of Technology, Kista, Sweden*

13:15-13:30 **MO.H.2_O5 - Effect of spin-transfer-torque induced dynamics of a synthetic antiferromagnetic reference layer on a spin-torque diode spectrum**

R. Matsumoto [1], H. Kubota [1], T. Yamaji [1], H. Arai [1], S. Yuasa [1], H. Imamura [1]
*1. National Institute of Advanced Industrial Science and Technology (AIST), Tokyo, Japan*

## MO.I.2_MOLECULAR MAGNETISM

**12:00-13:30 (ROOM D4-D6)**

**Chair:** Miguel Novak

12:00-12:30 **MO.I.2_I1 - Strong magneto-chiral dichroism detected by hard X-rays in a molecular helix**

R. Sessoli [1], A. Rogalev [2], F. Wilhelm [2], M.E. Boulon [1], M. Mannini [1], L. Poggini [1], A. Caneschi [1]
*1. University of Florence, Florence, Italy*
*2. ESRF, Grenoble, France*

12:30-12:45 **MO.I.2_O2 - B-T phase diagram of solid oxygen in the megagauss region**

T. Nomura [1], Y.H. Matsuda [1], S. Takeyama [1], A. Matsuo [1], K. Kindo [1], T. C. Kobayashi [2]
*1. ISSP Univ. of Tokyo, Tokyo, Japan*
*2. Okayama University, Okayama, Japan*

12:45-13:00 **MO.I.2_O3 - Light-Induced Spin-State Switching of an Fe(II) Complex Adsorbed on HOPG**

M. Bernien [1], H. Naggert [2], L.M. Arruda [1], L. Kipgen [1], F. Nickel [1], J. Miguel [1], C.F. Hermanns [1], A. Krüger [1], D. Krüger [1], E. Schierle [3]
*1. Institut für Experimentalphysik, Freie Universität Berlin, Berlin, Germany*
*2. Institut für Anorganische Chemie, Christian-Albrechts-Universität zu Kiel, Kiel, Germany*
*3. Helmholtz-Zentrum Berlin für Materialien und Energie, Berlin, Germany*

13:00-13:15 **MO.I.2_O4 - Intracluster interactions in "butterfly" {Fe3LnO2} molecules with non-Kramers Ln = Tb and Ho**

L. Badía-Romano [1], J. Rubín [2], F. Bartolomé [1], J. Luzón [3], D. Prodius [4], C. Turta [4], V. Mereacre [4], A. Rogalev [5], F. Wilhelm [5], J. Bartolomé [1]
*1. Instituto de Ciencia de Materiales de Aragón, Departamento de Física de la Materia Condensada, CSIC Universidad de Zaragoza, Zaragoza, Spain*
*2. Instituto de Ciencia de Materiales de Aragón, Departamento de Ciencia de Materiales e Ingeniería Metalúrgica, CSIC Universidad de Zaragoza, Zaragoza, Spain*
*3. Instituto de Ciencia de Materiales de Aragón, CSIC Universidad de Zaragoza, and Centro Universitario de la Defensa, Zaragoza, Spain*
*4. Institute of Chemistry, Academy of Sciences of Moldova, Chisinau, Republic of Moldova*
*5. European Synchrotron Radiation Facility, Grenoble, France*

13:15-13:30 **MO.I.2_O5 - Landing functional molecular spin clusters on surfaces.**

M. Affronte [1]
*1. Università Di Modena E Reggio Emilia, Modena, Italy*

## MO.J.2_ORGANIC SPINTRONICS. CARBON-BASED SPINTRONICS

**12:00-13:30 (ROOM E1-E3)**

**Chair:** Tomas Jungwirth

12:00-12:30 **MO.J.2_I1 - Spin transport in molecular films: beyond conventional spin valves**

L.E. Hueso [1,2], X. Sun [1], A. Bedoya-Pinto [1], M. Gobbi [1], H. Prima-García [3], S. Gómez-Miralles [3], E. Coronado [3], F. Casanova [1,2]
*1. CIC NanoGUNE, San Sebastian, Spain*
*2. IKERBASQUE, Basque Foundation for Science, Bilbao, Spain*
*3. ICMOL, Universidad de Valencia, Valencia, Spain*

12:30-12:45 **MO.J.2_O2 - Voltage-controlled inversion of tunnel magnetoresistance in epitaxial spin valve based on graphene**

F. Godel [1], V. Kamalakar [2], B. Doudin [1], Y. Henry [1], D. Halley [1], J.F. Dayen [1]
*1. Ipcms-Cnrs, Strasbourg, France*
*2. Chalmers University of Technology, Göteborg, Sweden*

12:45-13:00 **MO.J.2_O3 - Spin dependent electron scattering in graphene nanostructures on Ni(111)**

A. García-Lekue [1,2], T. Balashov [3], M. Olle [3], G. Ceballos [3], A. Arnau [1,4,5], P. Gambardella [3,6,7], D. Sánchez-Portal [1,4], A. Mugarza [3]
*1. Donostia International Physics Center (DIPC), San Sebastian, Spain*
*2. IKERBASQUE, Basque Foundation for Science, Bilbao, Spain*
*3. Catalan Institute of Nanoscience and Nanotechnology (ICN2), Bellaterra, Spain*
*4. Centro de Física de Materiales CFM - MPC, Centro Mixto CSIC-UPV, San Sebastián, Spain*
*5. Dpto. de Física de Materiales UPV/EHU, Facultad de Química, San Sebastián, Spain*
*6. Institució Catalana de Recerca i Estudis Avancats (ICREA), Barcelona, Spain*
*7. Department of Materials, ETH Zurich, Zurich, Switzerland*

13:00-13:15 **MO.J.2_O4 - Electrical detection of switching and photoconductivity in spin-crossover nanorods assembled by dielectrophoresis between interdigited electrodes**

C. Lefter [2], J. Dugay [1], R. Tan [1], A. Rotaru [3], I.A. Gural'skiy [4], S. Tricard [2], L. Salmon [2], J. Carrey [1], G. Molnar [2], A. Bousseksou [2]
*1. Laboratoire de Physique et Chimie des Nano-Objets,CNRS UMR 5215 et Université de Toulouse, France*
*2. Laboratoire de Chimie de Coordination, CNRS UPR-8241 and Université de Toulouse, France*
*3. Faculty of Electrical Engineering and Computer Science, Stefan cel Mare University, Suceava, Romania*
*4. Department of Chemistry, National Taras Shevchenko University, Kiev, Ukraine*

13:15-13:30 **MO.J.2_O5 - XMCD investigation of the magnetic anisotropy of Co and Fe adatoms and clusters adsorbed on Gr/Pt(111)**

P. Gargiani [1], H. Babu Vasili [1], J. Herrero [1], E. Pellegrin [1], A. Barla [2], M. Valvidares [1]
*1. ALBA Synchrotron Light Source, Cerdanyola del Vallés, Spain*
*2. Istituto di Struttura della Materia, ISM CNR, Area Science Park Basovizza, Trieste, Italy*

## MO.SEMIPLENARY-1

**16:00-16:45 (AUDITORIUM)**

**Chair:** Ivan Schuller

16:00-16:45

**MO.SP-1 -Adding magnetic functionalities to epitaxial graphene**
Rodolfo Miranda
*IMDEA Nanociencia And Universidad Autónoma De Madrid, Madrid, Spain*

## MO.SEMIPLENARY-2

**16:00-16:45 (ROOM J)**

**Chair:** David Sellmyer

16:00-16:45

**MO.SP-2 - Magnetization dynamics of nanodots and fundamental limits of minimum energy dissipation during switching**
Giovanni Carlotti
*University Of Perugia -Dipartimento Di Fisica E Geologia, Perugia, Italy*

## MO.SEMIPLENARY-3

**16:00-16:45 (ROOM F)**

**Chair:** Myriam Sarachik

16:00-16:45

**MO.SP-3 -Ferromagnetism in Semiconductors and the Role of Localization**
Tomasz Dietl
*Institute Of Physics  Polish Academy Of Sciences, Warszawa, Poland*

## MO.A.3_SUPERCONDUCTIVITY AND MAGNETISM, INCLUIDING EXOTIC SUPERCONDUCTIVITY

**17:15-18:15 (ROOM J)**

**Chair:** Tuson Park

17:15-17:30

**MO.A.3_O1 - Electronic, Magnetic and Structural Properties in Fe-based Superconductors**
L. Simonelli [1], T. Mizokawa [2], N.L. Saini [3]
*1. Alba Cells Synchrotron, Barcelona, Spain*
*2. Department of Physics and Department of Complexity Science and Engineering, University of Tokyo, Chiba, Japan*
*3. Dip. di Fisica, Università di Roma "La Sapienza", Roma, Italy*

17:30-17:45

**MO.A.3_O2 - Unconventional superconductivity in double quantum dots**
M. Governale [1], B. Sothmann [2], S. Weiss [3], J. König [3]
*1. Victoria University of Wellington, Wellington, New Zeland*
*2. Universitè de Genève, Geneve, Switzerland*
*3. Universität Duisburg-Essen, Essen, Germany*

17:45-18:00 **MO.A.3_O3 - Electronic structure, spin excitations, and orbital ordering in a three-orbital model for iron pnictides.**

S. Ghosh [1], A. Singh [1]
*1. Indian Institute of Technology, Kanpur, India*

18:00-18:15 **MO.A.3_O4 - Superconductivity in SrPt3P: An NMR study and comparison with non-centrosymmetric LaPt3Si and CePt3Si**

T. Shiroka [1,2], H.R. Ott [1,2], M. Pikulski [1], N.D. Zhigadlo [1], B. Batlogg [1], J. Mesot [1,2]
*1. Laboratorium für Festkörperphysik, ETH Zurich, Zurich, Switzerland*
*2. Paul Scherrer Institut, Villigen PSI, Switzerland*

## MO.B.3_MAGNETIC NANOPARTICLES

**17:15-18:15 (ROOM F)**

**Chair:** Marcelo Knobel

17:15-17:30 **MO.B.3_O1 - Transport properties of 1D magnetic nanochain**

J.S. Lee [1], Y.K. Kim [1]
*1. Korea University, Seongbuk-gu, Republic of Korea*

17:30-17:45 **MO.B.3_O2 - Hollow Fe3O4 Nanospheres and Their Microwave Applications**

Z. Yang [1], Z. Li [1], Y. Wu [1], M. Chua [1], Y. Yang [2]
*1. Temasek Laboratories, National University of Singapore, Singapore*
*2. School of Chemical and Biomedical Engineering, Nanyang Technological University, Singapore*

17:45-18:00 **MO.B.3_O3 - Chemical order in Cobalt-Iron nano-objects probed by Ferromagnetic Nuclear Resonance**

Y. Shin [1,2], C. Garnero [3], K. Soulantica [3], L. Marie Lacroix [3], B. Chaudret [3], J.W. Wu [2], C. Meny [1,2]
*1. Institut de Physique et Chimie des Matériaux de Strasbourg (IPCMS), Strasbourg, France*
*2. Department of Physics, CNRS-Ewha International Research Center, Ewha Womans University, Seoul, Republic of Korea*
*3. Laboratoire de Physique et Chimie des Nano-objets (LPCNO), Toulouse, France*

18:00-18:15 **MO.B.3_O4 - A Novel Approach for the Chemical Synthesis of Magnetically Hard Co and Fe/Co Composite Nanoparticles**

F.M. Abel [1], V. Tzitzios [2], D.J. Sellmyer [3], G.C. Hadjipanayis [1]
*1. Department of Physics and Astronomy, University of Delaware, Newark, United States*
*2. Institute of Materials Science, NCSR Demokritos, Attiki, Greece*
*3. Department of Physics and Astronomy, University of Nebraska, Lincoln, United States*

## MO.C.3_MAGNETIC THIN FILMS AND MULTILAYERS

**17:15-18:30 (ROOM H1)**

**Chair:** Andrzej Maziewski

17:15-17:30

**MO.C.3_O1 - Mobile magnetic phase boundary in compostionally graded films**

C. Miller [1], B. Kirby [2], H. Belliveau [3], P. Keinzle [2], A. Grutter [2], P. Riego [4], A. Berger [4]
*1. Rochester Institute of Technology, Rochester, United States*
*2. NCNR, NIST, Gaithersburg, United States*
*3. University of South Florida, Tampa, United States*
*4. CIC nanoGUNE Consolider, Donostia San Sebastian, Spain*

17:30-17:45

**MO.C.3_O2 - Deposition of soft anisotropic FeCoN films on mica substrates**

Y. Wu [1], Y. Yang [1], Z. Yang [1], F. Ma [1], B. Zong [1], J. Ding [1]
*1. National University of Singapore, Singapore*

17:45-18:00

**MO.C.3_O3 - Study of the antiferromagnetic order in strained SrMnO3 multiferroic thin films**

L. Maurel [1], N. Marcano [2,3], T. Prokscha [4], E. Langenberg [1,5], J. Blasco [2,6], R. Guzman [1], C. Magen [1,6,7], L. Morellon [1,6], M.R. Ibarra [1,6], J.A. Pardo [1,8], P.A. Algarabel [2,6]
*1. Instituto de Nanociencia de Aragón, Universidad de Zaragoza, Zaragoza, Spain*
*2. Instituto de Ciencia de Materiales de Aragón, Universidad de Zaragoza - Consejo Superior de Investigaciones Científicas, Zaragoza, Spain*
*3. Centro Universitario de la Defensa, Academia General Militar, Zaragoza, Spain*
*4. Laboratory for Muon Spin Spectroscopy, Paul Scherrer Institute, Villigen PSI, Switzerland*
*5. Centro de Investigación en Química Biológica y Materiales Moleculares, Universidad de Santiago de Compostela, Santiago de Compostela, Spain*
*6. Departamento de Física de la Materia Condensada, Universidad de Zaragoza, Zaragoza, Spain*
*7. Fundacion ARAID, Zaragoza, Spain*
*8. Departamento de Ciencia y Tecnología de Materiales y Fluidos, Universidad de Zaragoza, Zaragoza, Spain*

18:00-18:15

**MO.C.3_O4 - Exploiting magneto-optics as a gateway to the magnetism of Ce-YIG films grown on strongly paramagnetic garnet substrates**

B. Casals [1], M. Espinola [1], G. Herranz [1], J. Fontcuberta [1]
*1. Icmab-Csic, Bellaterra, Spain*

18:15-18:30 **MO.C.3_O5 - Evidence of spin polarisation in modulated Fe2-xTixO3-d based heterostructures**

Y. Dumont [1], O. Popova [1], E. Chikoïdze [1], F. Jomard [1], J. Vigneron [2], A. Etcheberry [2], N.Keller [1]
*1. Lab. GEMaC ; Université de Versailles St Quentin en Y. – CNRS, France*
*2. Institut Lavoisier de Versailles ; Université de Versailles St Quentin en Y. – CNRS, France*

## MO.D.3_HIGHLY FRUSTRATED MAGNETISM

**17:15-18:30 (ROOM H2)**

**Chair:** Elsa Lhotel

17:15-17:30 **MO.D.3_O1 - Neutron scattering study of J1-J2 zig-zag chains in SrDy2O4 frustrated magnet**

N. Gauthier [1], A. Fennell [2], A. Désilets-Benoît [3], B. Prévost [3], A.D. Bianchi [3], C. Niedermayer [2], M. Frontzek [2], C. Baines [4], J. Ollivier [5], L.P. Regnault [5]
*1. Laboratory for Developments and Methods, Paul Scherrer Institut, Villigen, Switzerland*
*2. Laboratory for Neutron Scattering and Imaging, Paul Scherrer Institut, Villigen, Switzerland*
*3. Département de physique, Université de Montréal, Montréal, Canada*
*4. Laboratory for Muon Spin Spectroscopy, Paul Scherrer Institut, Villigen, Switzerland*
*5. Institut Laue-Langevin, Grenoble, France*

17:30-17:45 **MO.D.3_O2 - Micromagnetic characterisation of gyroid nanostructures**

D. Love [1], J. Llandro [1], A. Kovacs [2], A. Kakay [2], M. Scherer [1], C. Cimorra [1], U. Steiner [1], R. Dunin-Borkowski [2], C. Barnes [1]
*1. University of Cambridge, Department of Physics, Cambridge, United Kingdom*
*2. Forschungszentrum Juelich, Ernst Ruska-Centre, Juelich, Germany*

17:45-18:00 **MO.D.3_O3 - Spin-excitation spectrum of the insulating skyrmion compound Cu2OSeO3**

D. Inosov [1], P. Portnichenko [1], A. Cameron [1], M. Schmidt [2], J. Park [3], D. Abernathy [4], A. Schneidewind [3]
*1. Technische Universität Dresden, Dresden, Germany*
*2. Max Planck Institute for the Chemical Physics of Solids, Dresden, Germany*
*3. Forschungsneutronenquelle Heinz Maier-Leibnitz, Garching, Germany*
*4. Oak Ridge National Laboratory, Oak Ridge, United States*

18:00-18:15 **MO.D3_O4 - Scaling Laws in speckle dynamics on artificial spin ices**

Y. Li [1], S. Morley [2], D. Laroze [1,3], C. Marrows [2], R. Stamps [1]
*1. University of Glasgow, Glasgow, United Kingdom*
*2. University of Leeds, Leeds, United Kingdom*
*3. Universidad de Tarapaca, Arica, Chile*

18:15-18:30 **MO.D3_O5 -Spin excitations in a highly frustrated antiferromagnet Ni3B2O6 explored by far-infrared and Raman spectroscopy**

R.V. Pisarev
*Ioffe Physical Technical Institute, Russian Academy of Sciences, SAINT PETERSBURG, RUSSIA*

## MO.E.3_THIN FILM NANOSTRUCTURES

**17:15-18:15 (ROOM H3)**

**Chair:** Adekunle Adeyeye

17:15-17:45 **MO.E.3_I1 - Manipulation of hybrid magnetic nanostructures through exchange bias and interfacial strain**

A. Fraile Rodríguez [1], M. García del Muro [1], M. Kovylina [1], A.C. Basaran [2], I. Valmianski [2], Rafael Morales [3,4], J.G. Ramírez [2], F. Kronast [5], M. A. Marcus [6], A. Scholl [6]
*1. Institut de Nanociència i Nanotecnologia, Universitat de Barcelona, Barcelona, Spain*
*2. Department of Physics and Center for Advanced Nanoscience, University of California San Diego, La Jolla, United States*
*3. Department of Chemical-Physics, BCMaterials, University of the Basque Country UPV/EHU, Leioa, Spain*
*4. IKERBASQUE, Basque Foundation for Science, Bilbao, Spain*
*5. Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Berlin, Germany*
*6. Advanced Light Source, Lawrence Berkeley National Laboratory, Berkeley, United States*

17:45-18:00 **MO.E.3_O2 - Nonlinear magneto-plasmonics in hybrid metal-ferromagnet multilayer structures**

I. Razdolski [1], A. Kirilyuk [1], T. Rasing [1], D. Makarov [2], O. Schmidt [2], V. Temnov [3]
*1. Institute of Molecules and Materials, Radboud University Nijmegen, Nijmegen, Netherlands*
*2. Institute for Integrative Nanosciences, IFW Dresden, Dresden, Germany*
*3. Institut des Molécules et Matériaux du Mans, UMR CNRS 6283, Université du Maine, Le Mans, France*

18:00-18:15 **MO.E.3_O3 - Stability of Single Skyrmionic Bits**

J. Hagemeister [1], N. Romming [1], K. von Bergmann [1], E. Vedmedenko [1], R. Wiesendanger [1]
*1. University of Hamburg, Hamburg, Germany*

## MO.F.3_SEMICONDUCTOR SPINTRONICS

**17:15-18:15 (ROOM A)**

**Chair:** Santiago Serrano-Guisan

17:15-17:30

**MO.F.3_O1 - Demonstration of spin-MOSFET using n-type Si at room temperature**

M. Kameno [1,2], T. Sasaki [3], Y. Ando [2], T. Shinjo [2], H. Koike [3], T. Oikawa [3], T. Suzuki [4], M. Shiraishi [2]

*1. Osaka University, Osaka Prefecture, Japan*
*2. Kyoto University, Kyoto Prefecture, Japan*
*3. TDK Corporation, Tokyo, Japan*
*4. AIT, Akita, Japan*

17:30-17:45

**MO.F.3_O2 - Spin pumping and spin-orbit effects in Ge**

S. Oyarzun [1], F. Rortais [1], J.C. Rojas-Sánchez [2], P. Laczkowski [2], N. Reyren [2], C. Vergnaud [1], L. Vila[1], J.P. Attané [1], C. Beigné [1], C. Ducruet [3],S. Gambarelli[1], J. Widiez[4], A. Nandy[5], S. Blügel[5], H. Jaffrès[2], JM. George[2], M. Jamet[1]

*1. INAC/SP2M, CEA-Grenoble and Université Grenoble Alpes, Grenoble, France*
*2. Unité Mixte CNRS/Thales, Palaiseau, France*
*3. CROCUS Technology, Grenoble, France*
*4. LETI, CEA-Grenoble, Grenoble, France*
*5. Forschungszentrum Jülich, Jülich, Germany*

17:45-18:00

**MO.F.3_O3 - Impurity-assisted Tunneling Magnetoresistance: the physics behind electrical three-terminal Hanle experiments**

O. Txoperena [1], Y. Song [2], L. Qing [3], M. Gobbi [1,4], L.E. Hueso [1,5], H. Dery [2,3], F. Casanova [1,5]

*1. CIC nanoGUNE, Donostia - San Sebastian, Spain*
*2. Department of Electrical and Computer Engineering, University of Rochester, Rochester, United States*
*3. Department of Physics and Astronomy, University of Rochester, Rochester, United States*
*4. Université de Strasbourg, Institut de Science et d'Ingénierie Supramoléculaires (I.S.I.S.), Strasbourg, France*
*5. IKERBASQUE, Basque Foundation of Science, Bilbao, Spain*

18:00-18:15

**MO.F.3_O4 - Spin Noise Spectroscopy of the Spin Hall Effect**

Y.V. Pershin [1], V.A. Slipko [1,2], N.A. Sinitsyn [3]

*1. Department of Physics and Astronomy, University of South Carolina, Columbia, United States*
*2. Department of Physics and Technology, V. N. Karazin Kharkov National University, Kharkiv, Ukraine*
*3. Theoretical Division, Los Alamos National Laboratory, New Mexico, United States*

## MO.G.3_ SPIN-ORBIT AND SPIN-LATTICE COUPLING

**17:15-18:15 (ROOM B1-B3)**

**Chair:** Virginie Simonet

17:15-17:30 **MO.G.3_O1 - Magnetic field dependence of phonons in the terbium gallium garnet**

M. Mori [1], A. Spencer-Smith [2], O. Sushkov [2], S. Maekawa [1]
*1. Japan Atomic Energy Agency, Ibaraki, Japan*
*2. University of New South Wales, Sydney, Australia*

17:30-17:45 **MO.G.3_O2 - Magnetic susceptibility anisotropy in noncentrosymmetric CePt3Si due to Rashba-type spin-orbit coupling**

B. Fak [1,2], V. Mineev [2]
*1. Institut Laue-Langevin, Grenoble, France*
*2. CEA and University, Grenoble Alpes, France*

17:45-18:00 **MO.G.3_O3 - Distribution of relaxation times in the skyrmion compound Cu2OSeO3**

I. Zivkovic [1,2], I. Levatic [1], V. Surija [1], H. Berger [2]
*1. Institute of Physics, Zagreb, Croatia*
*2. Institute of Condensed Matter Physics, LaUnited Statesnne, Switzerland*

18:00-18:15 **MO.G.3_O4 - Guiding of a zigzag spin spiral by local uniaxial strain relief**

P. Hsu [1], A. Finco [1], L. Schmidt [1], A. Kubetzka [1], K. von Bergmann [1], R. Wiesendanger [1]
*1. Department of  Physics, University of Hamburg, Hamburg, Germany*

## MO.H.3_VORTEX AND SKYRMION DYNAMICS

**17:15-18:15 (ROOM D1-D3)**

**Chair:** Mi-Young Im

17:15-17:30 **MO.H.3_O1 - Control of chaos in magnetic vortex structure formation**

K. Lee
*1. School of Materials Science and Engineering, KIST-UNIST Ulsan Center For Convergent Materials, Ulsan National Institut of Science And Technology (UNIST), Ulsan, South Korea*

17:30-17:45 **MO.H.3_O2 - Skyrmions at room temperature: Frommagnetic thin films to magnetic multilayers**

C. Moreau-Luchaire [1], C. Moutafis [2], N. Reyren [1], J. Sampaio [1], N. Van Horne [1], C. Vaz [2], K. Bouzehouane [1], K. García [1], C. Deranlot [1], P. Warnicke [1]
*1. Unité Mixte CNRS/Thales and Université Paris Sud, Palaiseau, France*
*2. Swiss Light Source, Paul Scherrer Institute, Villigen, Switzerland*
*3. Max Planck Institute for Intelligent Systems, Stuttgart, Germany*

17:45-18:00 **MO.H.3_O3 - Broadband microwave spectroscopy on the skyrmion lattice phase of different chiral magnets**

D. Grundler [1], I. Stasinpoulos [2], J. Waizner [3], M. Garst [3], A. Bauer [4], S. Weichselbaumer [2], H. Berger [5], T. Schwarze [2], C. Pfleiderer [4]
*1. Institut des Matériaux, École Polytechnique Fédérale de LaUnited Statesnne, LaUnited Statesnne, Switzerland*
*2. Lehrstuhl für Physik funktionaler Schichtsysteme, Technische Universitaet Muenchen, Munich, Germany*
*3. Institute of Theoretical Physics, University of Cologne, Köln, Germany*
*4. Lehrstuhl für Topologie korrelierter Systeme, Technische Universitaet Muenchen, Munich, Germany*
*5. Institut de Physique de la Matiére Complexe, École Polytechnique Fédérale de LaUnited Statesnne, LaUnited Statesnne, Switzerland*

18:00-18:15 **MO.H.3_O4 - Observation of local magnetization dynamics in helimagnetic FeGe**

P. Schönherr [1], A. Dussaux [1], K. Chang [1], N. Kanazawa [2], Y. Tokura [0], C. Degen [1], M. Fiebig [1], D. Meier [1]
*1. ETH Zürich, Zürich, Switzerland*
*2. University of Tokyo, Tokyo, Japan*
*3. Riken, Wako, Japan*

## MO.I.3_QUANTUM MAGNETISM AND PHYSICS OF FRUSTRATION

**17:15-18:15 (ROOM D4-D6)**

**Chair:** Frank Kruger

17:15-17:30 **MO.I.3_O1 - Probing Hidden Orders with Resonant Inelastic X-Ray Scattering**

L. Savary [1], T. Senthil [1]
*1. Massachusetts Institute of Technology, Cambridge, United States*

17:30-17:45 **MO.I.3_O2 - Femtosecond dynamics of magnetic excitations from resonant inelastic x-ray scattering**

S. Kourtis[1]
*1.TCM Group, Cavendish Laboratory, University Of Cambridge, Cambridge, United Kingdom*

17:45-18:00 **MO.I.3_O3 - Spin and charge interplay of interacting and frustrated electrons on the 1/3-filled Kagome lattice**

A. Ralko [1], K. Ferhat
*1. Néel Institute, Grenoble, France*

18:00-18:15 **MO.I.3_O4 - Magnetic Field dependence of 6 K anomaly in Spin Liquid State of k-(BEDT-TTF)2Cu2(CN)3 investigated by 13C NMR**

K. Miyagawa [1], K. Umeda [1], K. Kanoda [1]
*1. University of Tokyo, Tokyo, Japan*

## MO.J.3_SPIN WAVE DYNAMICS AND MAGNONICS

**17:15-18:15 (ROOM E1-E3)**

**Chair:** Marius Costache

17:15-17:30 **MO.J.3_O1 - Sub-20 femtosecond opto-magnetic excitation and the ultimately fast spin dynamics in a Heisenberg antiferromagnet**

D. Bossini [1], S. Dal Conte [2], Y. Hashimoto [1], A. Secchi [1], R. Pisarev [3], G. Cerullo [2], T. Rasing [1], A. Kimel [1]
*1. Institute for Molecules and Materials, Radboud University Nijmegen, Nijmegen, The Netherlands*
*2. IFN-CNR, Dipartimento di Fisica, Politecnico di Milan, Milan, Italy*
*3. A. F. Ioffe Physical-Technical Institute, Russian Academy of Sciences, St. Petersburg, Russian Federation*

17:30-17:45 **MO.J.3_O2 - Parametric Amplification of Spin Waves Using Bulk Acoustic Waves**

P. Chowdhury [1], P. Dhagat [1], A. Jander [1]
*1. Oregon State University, Corvallis, United States*

17:45-18:00 **MO.J.3_O3 - Spin-Orbit torques driven ferromagnetic resonance in ultrathin YIG disks**

M. Collet [1], O. d'Allivy Kelly [1], R. Bernard [1], E. Jacquet [1], P. Bortolotti [1], V. Cros [1], A. Anane [1], X. De Milly [2], G. De Loubens [2], V.V. Naletov [2,3]
*1. Unité Mixte de Physique CNRS/Thales And Université Paris Sud, Palaiseau, France*
*2. Service de Physique de l'État Condensé, CEA Saclay, Gif-sur-Yvette, France*
*3. Institute of Physics, Kazan Federal University, Kazan, Russian Federation*
*4. SPINTEC, UMR CEA/CNRS/UJF-Grenoble 1/Grenoble-INP, Grenoble, France*
*5. Instituto de Sistemas Optoelectronicos y Microtecnologia (UPM), Madrid, Spain*
*6. Instituto de Microelectronica de Madrid (CNM, CSIC), Madrid, Spain*

18:00-18:15 **MO.J.3_O4 – Theory of Current-induced Spin Torque Resonance of Magnetic Insulators**

T. Chiba [1], M. Schreier [2], G.E.W. Bauer [0], S. Takahashi [1]
*1. Institute for Materials Research, Tohoku University, Japan*
*2. Walther-Meissner Institut, Garching, Germany*
*3. WPI-AIMR, Tohoku University, Japan*
*4. Kavli Institute of NanoScience, Delft University of Technology, The Netherlands*

# TUESDAY , 7 JULY

## IUPAP AWARD CEREMONY

**08:30-09:00 (AUDITORIUM)**

## PLENARY-2

**09:00-10:00 (AUDITORIUM)**

**Chair:** Albert Fert

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|---|---|
| 09:00-10:00 | **PLENARY 2 -Golden Era of Modern Magnetism**<br>Chia-Ling Chien<br>*Johns Hopkins University, Baltimore, United States* |

## TU.SYM_SPIN-ORBITRONICS & SKYRMIONS

**10:00-13:00 (AUDITORIUM)**

**Chair:** Robert Stamps

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|---|---|
| 10:00-10:30 | **TU.SYM_1 - Two dimensional spin-orbitronics (skyrmions in multilayers, 2D conversion between charge and spin currents)**<br>Albert Fert<br>*Unité Mixte De Physique CNRS/Thales And Université Paris Sud, Palaiseau, France* |
| 10:30-11:00 | **TU.SYM_2 - Spin-Orbitronics with Skyrmions in Chiral Magnets**<br>Christian Pfleiderer<br>*Technische Universität München, Garching, Germany* |
| 11:00-11:30 | **TU.SYM_3 - Spin Hall effect and chiral magnetism in metallic heterostructures**<br>Masamitsu Hayashi<br>*National Institute For Materials Science, Tsukuba, Japan* |
| 12:00-12:30 | **TU.SYM_4 - Magnonic charge pumping via spin-orbit coupling**<br>Chiara Ciccarelli<br>*University Of Cambridge, Cambridge, United Kingdom* |
| 12:30-13:00 | **TU.SYM_5 - Chiral Magnetic Skyrmions in Ultrathin Films and Heterostructures: Inside from Materials-Specific Theory**<br>Stefan Blügel<br>*Forschungszentrum Jülich, Jülich, Germany* |

# TU.A.1_SOFT AND HARD MAGNETIC MATERIAL

**10:00-11:30 (ROOM J)**

**Chair:** Dimitri Niarchos

10:00-10:30

**TU.A.1_I1 - Magnetic properties evolution vs. microstructure in Fe-Mn-Si-B-P-Cu submicron wires**

N. Lupu [1,2], A. Makino [2,3], S. Corodeanu [1], P. Sharma [3], A. Takeuchi [3], H. Chiriac [1]
*1. National Institute of Research and Development for Technical Physics, Iasi, Romania*
*2. Cooperative Research and Development Center for Advanced Materials, Institute for Materials Research, Tohoku University, Sendai, Japan*
*3. Research and Development Center for Ultra High Efficiency Nano-crystalline Soft Magnetic Materials, Institute for Materials Research, Tohoku University, Sendai, Japan*

10:30-10:45

**TU.A.1_O2 - Circular magnetization process in a Co-rich microwire with negative magnetostriction**

N. Usov [1], S. Gudoshnikov [2]
*1. Pushkov Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation RAS, Moscow, Russian Federation*
*2. National University of Science and Technology MIS&S, Moscow, Russian Federation*

10:45-11:00

**TU.A.1_O3 - Heating influence on magnetic structure in Co and Fe rich amorphous microwires**

A. Chizhik [1], A. Stupakiewicz [2], A. [2], A. Zhukov [1,3], J. González [1]
*1. Universidad del Pais Vasco, Leioa, Spain*
*2. University of Bialystok, Białystok, Poland*
*3. IKERBASQUE, Bilbao, Spain*

11:00-11:15

**TU.A.1_O4 - Visualizing decoupling in nanocrystalline alloys: FORC-temperature analysis**

M. Rivas [1], J.C. Martínez-García [1], P. Gorría [1]
*1. Departamento de Física & IUTA, Universidad de Oviedo, Gijón, Spain*

11:15-11:30

**TU.A.1_O5 - Enhanced magneto-optical properties of Ce:YIG thin films grown on GGG substrates**

L. Beran [1], M.C. Onbasli [2], M. Zahradnik [1], J. Dusek [1], M. Kucera [1], J. Mistrik [3], M. Veis [1], C.A. Ross [2]
*1. Charles University in Prague, Faculty of Mathematics and Physics, Prague, Czech Republic*
*2. Department of Materials Science and Engineering, Massachusetts Institute of Technology, Cambridge, United States*
*3. University of Pardubice, Faculty of Chemical Technology, Pardubice, Czech Republic*

## TU.C.1_MAGNETIC THIN FILMS AND MULTILAYERS

**10:00-11:30 (ROOM H1)**

**Chair:** Masaaki Futamoto

10:00-10:30 **TU.C.1_I1 - 3D Curved Magnetic Surfaces**

D. Makarov [1], R. Streubel [1], M. Melzer [1], D. Karnaushenko [1], G. Lin [1], P. Fischer [2], F. Kronast [3], U. K. Rößler [4], O. G. Schmidt [1]
*1. Institute for Integrative Nanosciences, IFW Dresden, Dresden, Germany*
*2. Center for X-ray Optics, Lawrence Berkeley National Laboratory, Berkeley, United States*
*3. Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Berlin, Germany*
*4. Institute for Theoretical Solid State Physics, IFW Dresden, Dresden, Germany*

10:30-10:45 **TU.C.1_O2 - A New Path to Spin Engineering in Ultrathin Magnetic Layer Systems**

K. Schlage [1], D. Erb [1], H. Wille [1], L. Bocklage [1,2], D. Schumacher [1], J. Comfort [1], R. Röhlsberger [1,2]
*1. Deutsches Elektronen-Synchrotron DESY, Hamburg, Germany*
*2. The Hamburg Centre for Ultrafast Imaging, Hamburg, Germany*

10:45-11:00 **TU.C.1_O3 - Helimagnetic thin films: surface reconstruction, surface spin-waves and magnetization**

H.T. Diep [1], S. El Hog [1]
*1. LPTM, University of Cergy-Pontoise, CNRS, Cergy-Pontoise, France*

11:00-11:15 **TU.C.1_O4 - DIRECT IMAGING OF THE MAGNETIC DEAD LAYER IN STRAINED MANGANITE THIN FILMS**

L.A. Rodríguez González [1,2,3,4], L. Marin [2,3,5,6], C. Magén [2,3,4,7], E. Snoeck [1,4], R. Arras [1,4], I. Lucas [2,3,7], L. Morellón [2,3], P.A. Algarabel [3,5], J.M. De Teresa [2,3,4,5], M.R. Ibarra [2,3,4,5]
*1. CEMES-CNRS, Toulouse, France*
*2. Laboratorio de Microscopias Avanzadas (LMA), Instituto de Nanociencia de Aragón (INA), Universidad de Zaragoza, Zaragoza, Spain*
*3. Departamento de Física de la Materia Condensada, Universidad de Zaragoza, Zaragoza, Spain*
*4. Transpyrenean Associated Laboratory for Electron Microscopy (TALEM), CEMES-INA, CNRS-Universidad de Zaragoza, Toulouse, France*
*5. Instituto de Ciencia de Materiales de Aragón (ICMA), Universidad de Zaragoza, Zaragoza, Spain*
*6. LAAS-CNRS, Toulouse, France*
*7. Fundación ARAID, Zaragoza, Spain*

11:15-11:30 **TU.C.1_O5 - Magnetic hardening through exchange bias in Fe/NiO bilayers grown onto nanoporous Al2O3 membranes**

E. Navarro [1], M. Alonso [1], F. Cebollada [2], F.J. Palomares [1], J.M. Gonzalez [1], L. Soriano [3], A. Gutierrez [3]
*1. Instituto de Ciencia de Materiales de Madrid – CSIC, Madrid, Spain*
*2. Escuela Técnica Superior de Ingenieros de Telecomunicaciones-UPM, Madrid, Spain*
*3. Depto. de Física Aplicada and Instituto de Ciencia de Materiales Nicolás Cabrera-UAM, Madrid, Spain*

## TU.D.1_HIGHLY FRUSTRATED MAGNETISM

**10:00-11:30 (ROOM H2)**

**Chair:** Peter Holdsworth

10:00-10:30

**TU.D.1_I1 - Thermalization and Exotic Frustration in Artificial Spin Ice**

P. Schiffer [1], I. Gilbert [1], S. Zhang [2], C. Nisoli [3], G. Chern [3]
*1. University of Illinois at Urbana-Champaign, Champaign, United States*
*2. Argonne National Laboratory, Lemont, United States*
*3. Los Alamos National Laboratory, New Mexico, United States*

10:30-10:45

**TU.D.1_O2 - Spin correlations in the randomness-induced quantum spin-liquid state of the spin-1/2 kagome Heisenberg antiferromagnet --application to herbertsmithite --**

T. Shimokawa [1], K. Watanabe [1], H. Kawamura [1]
*1. Osaka University, Osaka Prefecture, Japan*

10:45-11:00

**TU.D.1_O3 - Magnetic excitations and phase diagram of the hyperkagome garnets Gd3Ga5O12 and Gd3Al5O12**

O. Florea [1], E. Lhotel [1], P. Deen [2], H. Jacobsen [3], A. Wildes [4], C. Knee [5], P. Henry [2]
*1. Institut Neel, Grenoble, France*
*2. European Spallation Source, Lund, Sweden*
*3. Niels Bohr Institute, Copenhagen, Denmark*
*4. Institut Laue-Langevin, Grenoble, France*
*5. Chalmers University of Technology, Göteborg, Sweden*

11:00-11:15

**TU.D.1_O4 - Spin Liquid Ground State in a Vanadium Based S=1/2 Trimerized Kagome Compound**

J.C. Orain [1], F. Bert [1], P. Mendels [1], L. Clark [2], F.H. Aidoudi [2], P. Lightfoot [2], R.E. Morris [2]
*1. Laboratoire de Physique des Solides, Université Paris-Sud, Orsay, France*
*2. School of Chemistry and EaSTChem, University of St. Andrews, St. Andrews, United Kingdom*

11:15-11:30

**TU.D.1_O5 - Thermal, transport, and spectral properties of generic quantum spin ice beyond the mean-field theory**

S. Onoda [1]
*1. Riken, Wako, Japan*

## TU.E.1_FERROICS AND MULTIFERROICS

**10:00-11:30 (ROOM H3)**

**Chair:** Annette Bussmann-Holder

10:00-10:15

**TU.E.1_O1 - Magnetic phase diagram and ordered ground state in GdMn2O5 multiferroic studied by x-ray and neutron scattering.**

A. Bombardi [1], C. Vecchini [1,2], L. Chapon [3], P. Radaelli [4], S. Cheong [5]

1. Diamond Light Source Ltd., Harwell Science and Innovation Campus, Didcot, Oxfordshire, United Kingdom
2. National National Physical Laboratory Hampton Road, Teddington, Middlesex, United Kingdom
3. Institut Laue-Langevin, Grenoble, France
4. Department of Physics, University of Oxford, Parks Road, Oxford, United Kingdom
5. Rutgers Center for Emergent Materials and Department of Physics and Astronomy, Rutgers University, Piscataway, United States

10:15-10:30 **TU.E.1_O2 - Magnetic structure of LuFe2O4 studied by soft x-ray magnetic circular dichroism**

S. Lafuerza [1], J. García [2], G. Subías [2], J. Blasco [2], J. Herrero-Martín [3]
1. European Synchrotron Radiation Facility (ESRF), Grenoble, France
2. Instituto de Ciencia de Materiales de Aragón (ICMA), Zaragoza, Spain
3. ALBA Synchrotron, Barcelona, Spain

10:30-10:45 **TU.E.1_O3 - Multiferroic perovskite RMnO3 crystalline films studied by resonant soft and hard X-ray diffraction**

W. Windsor [1], L. Rettig [1], A. Alberca [1], M. Ramakrishnan [1], K. Shimamoto [2], S. Huang [1], Y. Hu [2], V. Scagnoli [1], T. Lippert [2], C. Schneider [2]
1. Swiss Light Source, Paul Scherrer Institut, Villigen, Switzerland
2. General Energy Research Department, Paul Scherrer Institut, Villigen, Switzerland

10:45-11:00 **TU.E.1_O4 - Neutron scattering investigations of bulk and thin film multiferroic LuFeO3**

W. Ratcliff [1], S. Disseler [1], X. Luo [2], Y.S. Oh [3], R. Hu [3], J. Lynn [1], J. Borchers [1], C. Brooks [4], J. Mundy [4], J. Moyer [5]
1. NIST, Maryland, United States
2. Pohang University of Science and Technology, Pohang, Republic of Korea
3. Rutgers University, New Jersey, United States
4. Cornell University, New York, United States
5. University of Illinois, Illinois, United States
6. Boise State University, Idaho, United States

11:00-11:15 **TU.E.1_O5 - A high-pressure misfit-related polymorph of LuFe2O4 with room temperature antiferromagnetic order**

F. Damay [1], M. Poienar [2], M. Hervieu [3], A. Guesdon [3], J. Bourgeois [1,3], T. Hansen [4], E. Elkaïm [5], J. Haines [2], P. Hermet [2], L. Konczewicz [2], T. Hammouda [6], J. Rouquette [2], C. Martín [3]
1. Laboratoire Leon Brillouin, Gif sur Yvette, France
2. Institut Charles Gerhardt, Montpellier, France
3. Laboratoire CRISMAT, Caen, France
4. Institut Laue-Langevin, Grenoble, France
5. Synchrotron Soleil, Saint-Aubin, France
6. Laboratoire Magmas & Volcans, Clermont-Ferrand, France

11:15-11:30 **TU.E.1_O6 - Ultrafast spin dynamics of optically and THz excited TbMnO3**

U. Staub[1]
*1. Paul Scherrer Institut, Villigen, Switzerland*

## TU.F.1_HEAVY FERMIONS PHYSICS INCLUDING VALENCE AND CHARGE FLUCTUATIONS

**10:00-11:30 (ROOM A)**

**Chair:** Roser Valenti

10:00-10:30 **TU.F.1_I1 - STS studies on correlated f-electron systems: Kondo lattice, quantum criticality and topological Kondo insulator**

S. Wirth [1], S. Seiro [1], S. Rößler [1], L. Jiao [1], S. Hartmann [1], C. Krellner [2], C. Geibel [1], D. Kim [3], Z. Fisk [3], S. Kirchner [4]
*1. Max-Planck Institute for Chemical Physics of Solids Dresden, Dresden, Germany*
*2. Physics Institute, Goethe University, Frankfurt, Germany*
*3. University of California, Irvine, United States*
*4. Center for Correlated Matter, Zhejiang University, Hangzhou, China*
*5. Dept. of Physics and Astronomy, Rice University, Houston, United States*

10:30-10:45 **TU.F.1_O2 - Fermi surface instabilities in CeRh2Si2 at high magnetic field and pressure**

A. Pourret [1,2], A. Palacio-Morales [1,2], G. Knebel [1,2], D. Braithwaite [1,2], G. Seyfarth [3], M. Suzuki [4], D. Aoki [1,2,5], J. Flouquet [1,2]
*1. Univ. Grenoble Alpes, INAC-SPSMS, Grenoble, France*
*2. CEA, INAC-SPSMS, Grenoble, France*
*3. Laboratoire National des Champs Magnétiques Intenses, -INSA, Grenoble and Toulouse, France*
*4. RIKEN Center for Emergent Matter Science, Wako, Saitama, Japan*
*5. Institute for Materials Research, Tohoku University, Oarai, Ibaraki, Japan*

10:45-11:00 **TU.F.1_O3 - ARPES study of CeRh2Si2: Paradigmatic 4f spectral response in an enigmatic Kondo lattice**

D. Vyalikh [1], C. Geibel [2]
*1. Institute of Solid State Physics, Dresden University of Technology, Dresden, Germany*
*2. Max Planck Institute for Chemical Physics of Solids, Saarbrücken, Germany*

11:00-11:15 **TU.F.1_O4 - Large Fermi-Surface Antiferromagnetism in the Kondo lattice model**

R. Peters [1], N. Kawakami [2]
*1. Riken, Wako, Japan*
*2. Kyoto University, Kyoto, Japan*

11:15-11:30 **TU.F.1_O5 - Experimental Investigation on Magnetism and Pressure induced Superconductivity in CeCu2Si2, CeCu2Ge2, and CeAu2Si2**
G. Werner Scheerer [1], G. Giriat [1], Z. Ren [1], G. Lapertot [2], D. Jaccard [1]
*1. DPMC - University of Geneva, Geneva, Switzwerland*
*2. SPSMS, CEA-INAC/UJF, Grenoble, France*

## TU.G.1_MAGNETIC SEMICONDUCTORS AND DILUTED MAGNETS

**10:00-11:30 (ROOM B1-B3)**

**Chair:** M. Carmen Muñoz

10:00-10:30 **TU.G.1_I1 - Origin of ferromagnetism and critical behaviour in insulating (Ga,Mn)N**
M. Sawicki [1]
*1. Institute of Physics, Warsaw, Poland*

10:30-10:45 **Tu.G.1_O2 - Electronic structure of (Ga,Mn)As revisited: an alternative view on the "Battle of the bands"**
K. Karlsson [1], J. Kanski [2], L. Ilver [2], I. Ulfat [3], M. Leandersson [4], J. Sadowski [4], I. Di Marco [5]
*1. Department of Engineering Sciences, University of Skövde, Skövde, Sweden*
*2. Department of Applied Physics, Chalmers University of Technology, Göteborg, Sweden*
*3. Department of Physics, University of Karachi, Karachi, Pakistan*
*4. MAX IV Laboratory, Lund University, Lund, Sweden*
*5. Department of Physics and Astronomy, Uppsala University, Uppsala, Sweden*

10:45-11:00 **TU.G.1_O3 - Laser-induced ultrafast modification of electron-spin dynamics in GaAs with adjacent ferromagnetic epilayer**
D. Butkovièová [1], P. Nýmec [1], K. Olejník [2], V. Novák [2], T. Janda [1], F.k Trojának [1], T. Jungwirth [2]
*1. Charles University, Prague, Czech Republic*
*2. The Academy of Sciences of the Czech Republic, Prague, Czech Republic*

11:00-11:15 **TU.G.1_O4 - Substitutional and metallic cobalt in ZnO films with aluminium**
W. Dizayee [1], X. Li [2], H. Blythe [1], S. Heald [3], M. Fox [1], G. Gehring [1]
*1. The University of Sheffield, Sheffield, United Kingdom*
*2. Shanxi Normal University, Xi'an, China*
*3. Argonne National Laboratory, Lemont, United States*

11:15-11:30

**TU.G.1_O5 - Atomic-scale magnetic properties of truly 3d-diluted ZnO investigated with emission Mössbauer Spectroscopy**

R. Mantovan [1], H.P. Gunnlaugsson [2,3], K. Johnston [4], H. Masenda [5], T. Esmann Mølholt [6], D. Naidoo [5], M. Ncube [5], S. Shayestehaminzadeh [6], K. Bharuth-Ram [7,8], M. Fanciulli [1,9]
*1. Laboratorio MDM IMM-CNR, Agrate Brianza, Italy*
*2. KU Leuven, Instituut voor Kern-en Stralings Fysika, Leuven, Belgium*
*3. Department of Physics and Astronomy, Aarhus University, Aarhus, Denmark*
*4. Physics Department, ISOLDE/CERN, Geneva, Switzerland*
*5. School of Physics, University of the Witwatersrand, Johannesburg, South Africa*
*6. Science Institute, University of Iceland, Reykjavik, Iceland*
*7. School of Physics, Durban University of Technology, Durban, South Africa*
*8. iThemba LABS, Somerset West, South Africa*
*9. Dipartimento di Scienza dei Materiali, Università di Milano Bicocca, Milan, Italy*
*10. Centro de Ciéncias e Tecnologias Nucleares, Instituto Superior Técnico, Universidade de Lisboa, Sacavém, Portugal*

## TU.H.1_SPIN-TRANSFER TORQUE AND SPIN-TRANSFER OSCILLATORS

**10:00-11:30 (ROOM D1-D3)**

**Chair:** Yaroslaw Bazaliy

10:00-10:30

**TU.H.1_I1 - Zero-field precession and suppression of the output power due to the biasdependence of the TMR in MgO-based spin-torque oscillators**

A. Deac [1]
*1. Helmholtz-Zentrum Dresden - Rossendorf, Institute of Ion Beam Physics and Materials Research, Dresden, Germany*

10:30-10:45

**TU.H.1_O2 - Tunability versus deviation sensitivity in a nonlinear vortex oscillator**

S. Y. Martin [1,2], C. Thirion [3], C. Hoarau [3], C. Baraduc [2], B. Diény [2]
*1. Hitachi Cambridge Laboratory, Cambridge, United Kingdom*
*2. SPINTEC, UMR-8191,CEA-INAC/CNRS/UJF-Grenoble, Grenoble-INP, Grenoble, France*
*3. Institut Néel, CNRS et Université Joseph Fourier, Grenoble, France*

10:45-11:00

**TU.H.1_O3 - Self-injection on vortex spin torque oscillator using a delayed feedback circuit**

S. Tsunegi [1,2], E. Grimaldi [1], R. Lebrun [1], A. Jenkins [1], J. Grollier [1], H. Kubota [2], K. Yakushiji [2], A. Fukushima [2], S. Yuasa [2], V. Cros [1]
*1. Unité Mixte de Physique CNRS/Thales and Université Paris Sud, France*
*2. National Institute of Advanced Industrial Science and Technology (AIST), Spintronics Research Center, Tsukuba, Japan*

11:00-11:15 **TU.H.1_O4 - From perfect fractional injection locking to electrical synchronization of two vortex based spin-transfer nano-oscillator**

R. Lebrun [1], S. Tsunegi [1,2], A. Jenkins [1], A. Dussaux [1], N. Locatelli [1], E. Grimaldi [1], H. Kubota [2], P. Bortolotti [3], K. Yakushiji [2], A. Fukushima [2]
*1. UMR CNRS/Thales & Université Paris Sud, France*
*2. National Institute of Advanced Industrial Science and Technology (AIST), Spintronics Research Center, Tsukuba, Japan*
*3. Thales TRT, France*

11:15-11:30 **TU.H.1_O5 - Very Large Amplitude Power Spin Transfer Torque Nano-Oscillators with intermediate MgO barrier thickness**

J. D. Costa[1,2], S. Serrano-Guisan[1], E. Paz[1], J. Borme[1], M. Tarequzzman[1], J. Ventura[2], R. Ferreira[1], P.P. Freitas[1]
*1. International Iberian Nanotechnology Laboratory (INL), Braga (Portugal)*
*2. IN-IFIMUP, Porto (Portugal)*

## TU.I.1_MAGNETIC DEVICES AND NOVEL MATERIALS

**10:00-11:30 (ROOM D4-D6)**

**Chair:** Alfredo García-Arribas

10:00-10:30 **TU.I.1_I1 - Spin-wave logic devices**

A. Chumak [1]
*1. Fachbereich Physik and Landesforschungszentrum OPTIMAS, Technische Universität Kaiserslautern, Kaiserslautern, Germany*

10:30-10:45 **TU.I.1_O2 - Novel paths for rf applications based on spintronics**

P. Bortolotti [1], A. Anane [1], M. Collet [1], D. Crete [1], V. Cros [1], O. d'Allivy Kelly [1], E. Grimaldi [1], J. Grollier [1], A. Jenkins [1], J. Kermorvant [1]
*1. Unité Mixte De Physique CNRS/Thales, France*

10:45-11:00 **TU.I.1_O3 - Ultra-compact device based on spin valve sensors coupled to flux concentrators with sub-micrometer gaps**

D. Leitao [1,2], P. Coelho [1], J. Valadeiro [1,2], A. Silva [1,2], J. Borme [3], L. Melo [1,2], S. Cardoso [1,2], P. Freitas [1,3]
*1. INESC-M, Lisbon, Portugal*
*2. University of Lisbon, Lisbon, Portugal*
*3. International Iberian Nanotechnology Laboratory, Braga, Portugal*

11:00-11:15 **TU.I.1_O4 - Nanopatterning reconfigurable magnetic landscapes via thermally assisted scanning probe lithography**

E. Albisetti [1,2], D. Petti [1], M. Pancaldi [3], J. Curtis [2], W. King [4], A. Papp [5], G. Csaba [5], W. Porod [5], P. Vavassori [3,] E. Riedo [2]
*1. Department of Physics, Politecnico di Milano,Milano, Italy*
*2. School of Physics, Georgia Institute of Technology, Atlanta, United States*
*3. CIC nanoGUNE Consolider, San Sebastian, Spain*
*4. Department of Mechanical Science and Engineering, University of Illinois Urbana-Champaign, Urbana, United States*
*5. Center for Nano Science and Technology, University of Notre Dame, Notre Dame, United States*
*6. IKERBASQUE, Basque Foundation for Science, Bilbao, Spain*
*7. IFN-CNR, c/o Politecnico di Milano, Milano, Italy*

11:15-11:30 **TU.I.1_O5 - Precision Spintronics in Novel Ultrathin Magneto-Electronic Devices**

K. Schlage [1], L. Bocklage [1,2], D. Erb [1], H. Wille [1], R. Roehlsberger [1,2]
*1. Deutsches Elektronen-Synchrotron DESY, Hamburg, Germany*
*2. The Hamburg Centre for Ultrafast Imaging, Hamburg, Germany*

## TU.J.1_PERPENDICULAR MAGNETIC ANISOTROPY MATERIALS

**10:00-11:30 (ROOM E1-E3)**

**Chair:** Robert Shull

10:00-10:30 **TU.J.1_I1 - Perpendicular magnetic tunnel junctions with single and double MgO barriers for STT-MRAM cells**

L. Cuchet [1,2,3], A. Timopheev [1,2,3], P. Clement [1,2,3], B. Rodmacq [1,2,3], S. Auffret [1,2,3], C. Baraduc [1,2,3], R. SoUnitedStates [1,2,3], I. Prejbeanu [1,2,3], M. Chshiev [1,2,3], B. Dieny [1,2,3]
*1. Univ.Grenoble Alpes, INAC-SPINTEC, Grenoble,France*
*2. CEA, INAC-SPINTEC, F-38000 Grenoble, France*
*3. CNRS, SPINTEC, F-38000 Grenoble, France*

10:30-10:45 **TU.J.1_O2 - X-ray induced anisotropy change in Pt/Co/MgO trilayers**

J. Vogel [1,2], S. Pizzini [1,2], T. Onur Mentes [3], A. Sala [3], A. Locatelli [3], L. Buda-Prejbeanu [1,4,5], G. Gaudin [1,4,5], O. Boulle[1,4,5]
*1. Université Grenoble Alpes, Grenoble, France*
*2. CNRS, Institut Néel, 38042 Grenoble, France*
*3. Elettra - Sincrotrone Trieste S.C.p.A., Basovizza, Trieste, Italy*
*4. CEA, INAC, SPINTEC, Grenoble, France*
*5. CNRS, SPINTEC, Grenoble, France*

10:45-11:00 **TU.J.1_O3 - Exchange bias-like effect in 2D patterned thin films with perpendicular magnetic anisotropy**

A. Hierro-Rodriguez [1,2], J. Teixeira [1], M. Vélez [3], L. Alvarez-Prado [3,4] N, J. Martín [3,4], J. Alameda [3,4]
*1. IN-IFIMUP, Departamento de Física e Astronomia, Faculdade de Ciências,Universidade do Porto, Porto, Portugal*

*2. INESC-TEC (Coordinated by INESC-Porto), Departamento de Física e Astronomia, Faculdade de Ciéncias,Universidade do Porto, Porto, Portugal.*
*3. Universidad de Oviedo, Dpto. de Física, Oviedo, Spain*
*4. Centro de Investigación en Nanomateriales y Nanotecnología - CINN (CSIC - Universidad de Oviedo - Principado de Asturias), El Entrego, Spain*

11:00-11:15 **TU.J.1_O4 - Perpendicular magnetic anisotropy in granular multilayers of CoPd alloyed nanoparticles**

L. Gonzalez Vivas [1], A. I. Figueroa [1], F. Bartolomé [1], J. Rubén [1], L. García [1], C. Deranlot [2], F. Petroff [2], L. Ruiz [3], J. M. Gonzalez-Calbet [3], S. Pascarelli [4]
*1. Instituto De Ciencia De Materiales De Aragón (ICMA), CSIC-Universidad De Zaragoza. Departamento De Física De La Materia Condensada, Zaragoza, Spain*
*2. Unité Mixte de Physique CNRS/Thales, Palaiseau, France, and Université Paris-Sud, Orsay , France*
*3. Departamento de Química Inorgánica, Universidad Complutense de Madrid, Madrid, Spain*
*4. European Synchrotron Radiation Facility (ESRF) CS40220, Grenoble, France*

11:15-11:30 **TU.J.1_O5 - Correlation between magnetic properties and chemical order in L10 FePtCu thin films studied by EXAFS**

S. Laureti [1], C. Brombacher [2], D. Makarov [3], M. Albrecht [4], D. Peddis [1], G. Varvaro [1], F. D'Acapito[5]
*1. ISM-CNR, Area della Ricerca RM1, Monterotondo Scalo, Roma, Italy*
*2. Institute of Physics, Chemnitz University of Technology, Chemnitz, Germany*
*3. Institute for Integrative Nanosciences, Leibniz Institute for Solid State and Materials Research (IFW Dresden), Dresden, Germany*
*4. Institute of Physics, Augsburg University, Augsburg, Germany*
*5. CNR-IOM-OGG c/o ESRF, GILDA CRG, Grenoble, France*

## TU.A.2_SOFT AND HARD MAGNETIC MATERIALS

**12:00-13:30 (ROOM J)**

**Chair:** Thomas Schrefl

12:00-12:30 **TU.A.2_I1 - Coercivity Enhancement in Hybrid Systems**

J. de La Venta [1], J.G. Ramírez [2], T. Saerbeck [3], S. Wang [4], I. Valmianski [2], I. K. Schuller [2]
*1. Department of Physics, Colorado State University, Fort Collins, United States*
*2. Department of Physics and Center for Advanced Nanoscience, University of California San Diego, La Jolla, United States*
*3. Institut Laue-Langevin, Grenoble, France*
*4. Materials Science Division, Lawrence Berkeley National Laboratory, Berkeley, United States*

12:30-12:45 **TU.A.2_O2 - Exchange correlation length in nanocrystalline soft magnetic materials**

K. Suzuki [1], N. Ito [1], J. Garitaonandia [2], A. Michels [3], G. Herzer [4], M. Lokamani [5], R. Schaefer [5]
*1. Monash University, Malvern East, Australia*
*2. University of the Basque Country, Leioa, Spain*
*3. University of Luxembourg, Walferdange, Luxembourg*
*4. Vacuumschmelze GmbH, Hanau, Germany*
*5. Leibniz Institute for Solid State and Materials Research, Dresden, Germany*

12:45-13:00 **TU.A.2_O3 - Drastic reduction of Ni-Zn ferrites during consolidation by spark plasma sintering (SPS)**

Y. Flores-Arias [1], T. Gaudisson [2], S. Ammar [2], R. Valenzuela [1]
*1. Instituto de Investigaciones en Materiales, Universidad Nacional Autónoma de México, México D.F., México*
*2. 2ITODYS, Université Paris-Diderot, PRES Sorbonne Paris Cité, Paris, France*

13:00-13:15 **TU.A.2_O4 - Development of a very low loss MnZn ferrite for power applications**

V. Tsakaloudi [1], V. Zaspalis [1,2]
*1. Centre for Research and Technology Hellas-CERTH, Thessaloniki, Greece*
*2. Aristotle University of Thessaloniki-AUTh, Thessaloniki, Greece*

13:15-13:30 **TU.A.2_O5 - Study of the induced anisotropy in field annealed Hitperm alloys by Mössbauer spectroscopy and Kerr microscopy**

J. S. Blázquez [1], J. Marcin [2], F. Andrejka [2], V. Franco [1], A. Conde [1], I. Skorvanek [2]
*1. Departamento de Física de la Materia Condensada, ICM-SE CSIC, Universidad de Sevilla, Sevilla, Spain*
*2. Institute of Experimental Physics, Slovak Academy of Sciences, Kosice, Slovakia*

## TU.B.2_MAGNETIC NANOPARTICLES

**12:00-13:30 (ROOM F)**

**Chair:** Zi Qiang Qiu

12:00-12:30 **TU.B.2_I1 - Exchange bias effect in CoO@Fe3O4 core-shell octahedron-shaped nanoparticles**

V. Salgueiriño [1], N. Fontaíña-Troitiño [1], B. Rodríguez-González [1], B. Rivas-Murias [2]
*1. Universidade de Vigo, Vigo, Spain*
*2. CIQUS-Universidade de Santiago de Compostela, Santiago de Compostela, Spain*

12:30-12:45 **TU.B.2_O2 – Determination of the local oxidation state of transition metals in 3D: application to magnetic nanoparticles**

S. Estrade [1], P. Torruella [1], R. Arenal [2], L. Yedra [1], A. Eljarrat [1], L. López-conesa [1], M. Estrader [3], A. López-Ortega [4], G. Salazar-Alvarez [5], J. Nogués [6]
*1. LENS, MIND-IN2UB, Universitat de Barcelona, Barcelona, Spain*
*2. Laboratorio de Microscopías Avanzadas (LMA), Instituto de Nanociencia de Aragón (INA), Universidad de Zaragoza, Zaragoza, Spain*
*3. Departament de Química Inorgánica, Universitat de Barcelona, Barcelona, Spain*
*4. INSTM and Dipartimento di Chimica "U. Schiff", Università degli Studi di Firenze, Firenze, Italy*
*5. Department of Materials and Environmental Chemistry, Arrhenius Laboratory, Stockholm University, Stockholm, Sweden*
*6. Departament de Física, Universitat Autónoma de Barcelona & ICN2 - Institut Catala de Nanociencia i Nanotecnologia, Campus UAB & Institució Catalana de Recerca i Estudis Avançats (ICREA), Barcelona, Spain*

12:45-13:00 **TU.B.2_O3 - Effect of the oxygen content in the reaction environment on size and shape of CoFe2O4 nanoparticles: morphological analysis by aspect maps.**

G. Muscas [0], G. Singh [1], W.R. Glomm [2], R. Mathieu [5], P. Anil Kumar [5], G. Concas [4], E. Agostinelli[3], D. Peddis [3]
*1. Department of Materials Science and Engineering, Norwegian University of Science and Technology (NTNU), Trondheim, Norway*
*2. SINTEF Materials and Chemistry, Biotechnology and Nanomedicine Sector, Trondheim, Norway*
*3. Istituto di Struttura della Materia – CNR, Rome, Italy*
*4. Dipartimento di Fisica, Università di Cagliari, Cagliari, Italy*
*5. Department of Engineering Sciences, Uppsala University, Uppsala, Sweden*

13:00-13:15 **TU.B.2_O4 - Magneto-optical investigation on the multiphase and stability of Fe oxide nanoparticles**

G. Campo [1], C. de Julian Fernández [2,1], M. Albino [1], C. Innocenti [1], F. Pineider [3,1], V. Bonanni [3,1], A. Caneschi [1], C. Sangregorio [4,1]
*1. INSTM and University of Florence, Florence, Italy*
*2. IMEM – CNR, Parma, Italy*
*3. ISTM – CNR, Milan, Italy*
*4. ICCOM – CNR, Sesto Fiorentino, Italy*

13:15-13:30 **TU.B.2_O5 - Synthesis, structural and magnetic properties of CdFe2O4 ferrite**

J. Z. Msomi[1]
*1. School of Physics, University of KwaZulu-Natal, Durban, South Africa*

## TU.C.2_MAGNETIC PHASE TRANSITION AND MAGNETIC INTERACTIONS

**12:00-13:45 (ROOM H1)**

**Chair:** Françoise Damay

12:00-12:30 **TU.C.2_I1 - Random Fields in Magnets and Superconductors: The Role of Topology**

E. Chudnovsky [1], T. Proctor [1], D. Garanin [1]
*1. Lehman College and Graduate School of the City University of New York, Bronx, United States*

12:30-12:45 **TU.C.2_O2 -Relation between crystallographic chirality and spin chirality in chiral helimagnets studied by polarized small angle neutron scattering and muon spin rotation**

K. Ohishi [1], Y. KoUnited Stateska [2], N. Ikeda [3], T. Ogura [3], T. Yoshii [3], E. Proskurina [3], J. Akimitsu [3], J. Suzuki[1], H. Hiraka [4], A. Koda [4]
*1. CROSS, Japan*
*2. Hiroshima University, Hiroshima-Shi, Japan*
*3. Aoyama-Gakuin University, Tokyo, Japan*
*4. KEK-IMSS, Ibaraki, Japan*
*5. The Open University of Japan, Chiba, Japan*

12:45-13:00 **TU.C.2_O3 - Two step Pressure induced collapse of magnetic order and fluctuating chiral phase in MnGe Chiral magnet**

I. Mirebeau [1], M. Deutsch [1], N. Martín [1], P. Bonville [2], T. Hansen [3], M.T. Fernández-Diaz [3], F. Bert[4], D. Andreica [5], A. Amato [6], L. Fomicheva [7]
*1. CEA-Saclay, DSM/IRAMIS/ Laboratoire Léon Brillouin, Gif-sur-Yvette, France*
*2. CEA- Saclay, DSM/IRAMIS/ SPEC, Gif-Sur-Yvette, France*
*3. Institut Laue Langevin, Grenoble, France*
*4. LPS, Université Paris-Sud, Orsay, France*
*5. Faculty of Physics, Babes-Bolyai University, Cluj-Napoca, Romania*
*6. Laboratory for Muon Spin Spectroscopy, Villigen, Switzerland*
*7. Vereshchagin Institute for High Pressure Physics, Troitsk, Moscow, Russian Federation*
*8. Leibniz Institute for Solid State and Material Research IFW, Dresden, Germany*

13:00-13:15 **TU.C.2_O4 - Long Periodic Helimagnetic Ordering in CrM3S6 (M = Nb, Ta)**

Y. KoUnited Stateska [1,2], T. Ogura [3], J. Zhang [4,5], P. Miao [4], S. Torii [4], T. Kamiyama [4,6], J. Campo [7], K. Inoue[1,8], J. Akimitsu [3]
*1. Graduate School of Science, Hiroshima University, Japan*
*2. Center for Chiral Science, Hiroshima University, Japan*
*3. Department of Physics and Mathematics, Aoyama-Gakuin University, Japan*
*4. Institute of Materials Structure Science, KEK, Japan*
*5. Institute of High Energy Physics, Chinese Academy of Science, Beijing, China*
*6. Graduate University for Advanced Studies (Sokendai), Japan*
*7. CSIC-Universidad de Zaragoza, Zaragoza, Spain*
*8. Institute for Advanced Materials Research, Hiroshima University, Japan*

13:15-13:30 **TU.C.2_O5 - Microscopic theory of Dzyaloshinskii-Moriya coupling and related exchange-relativistic effects**

A. Moskvin [1]
*1. Ural Federal University, Sverdlovsk Oblast, Russian Federation*

13:30-13:45 **TU.C.2_O6 - Unusual nonlinear magnon-magnon and magnon-phonon interaction in 2d triangular lattice of RMnO**

J. Park[1]
*1. Center For Correlated Electron Systems, Institute For Basic Science (IBS) & Depa, Seoul, Republic Of Korea*

## TU.D.2_HIGHLY FRUSTRATED MAGNETISM

**12:00-13:30 (ROOM H2)**

**Chair:** Sylvain Petit

12:00-12:30 **TU.D.2_I1 - Fluctuations and all-in / all-out state in the Ising antiferromagnet Nd2Zr2O7**

E. Lhotel [1], S. Petit [2], M.C. Hatnean [3], S. Guitteny [2], C. Colin [1], J. Robert [1], I. Mirebeau [2], M.R. Lees [3], G. Balakrishnan [3]
*1. Institut Néel CNRS, Grenoble, France*
*2. Laboratoire Léon Brillouin CEA Saclay, Saclay, France*
*3. University of Warwick, Coventry, United Kingdom*

12:30-12:45 **TU.D.2_O2 - What is the nature of the ground state in the stoichiometric pyrochlore $Yb_2Ti_2O_7$?**

E. Kermarrec [1,2], K. Ross [3], J. Gaudet [1], N. Butch [4], H. Dabkowska [1,5], B. Gaulin [0]
*1. Department of Physics and Astronomy, McMaster University, Hamilton, Canada*
*2. Laboratoire National des Champs Magnétiques Intenses, Grenoble, France*
*3. Colorado State University, Fort Collins, United States*
*4. NIST Center for Neutron Research, Gaitthersburg, United States*
*5. Brockhouse Institute for Materials Research, Hamilton, Canada*
*6. Canadian Institute for Advanced Research, Toronto, Canada*

12:45-13:00 **TU.D.2_O3 - Anisotropy tuned magnetic order in pyrochlore iridates**

E. Lefrançois [1,2], V. Simonet [2], R. Ballou [2], E. Lhotel [2], P. Lejay [2], P. Manuel [3], D. Khalyavin [3], L.C. Chapon [1]
*1. Institut Laue-Langevin, Grenoble, France*
*2. Institut Néel, CNRS & Université, Grenoble, France*
*3. ISIS Facility, STFC, Rutherford Appleton Laboratory, Swindon, United Kingdo*

13:00-13:30 **TU.D.2_I4 - Quantum order-by-disorder and excitations of anisotropic Kagome antiferromagnets**

S. Chernyshev [1], M. Zhitomirsky [2]
*1. University of California, Irvine, United States*
*2. CEA, Grenoble, France*

## TU.E.2_FERROICS AND MULTIFERROICS

**12:00-13:30 (ROOM H3)**

**Chair:** Gervasi Herranz

12:00-12:15

**TU.E.2_O1 - Giant Magnetoelectric Effect in FeCo and FeCo/Ag films on (011) oriented PIN-PMN-PT**

M. Staruch [1], P. Finkel [1]
*1. Naval Research Laboratory, Washigton, United States*

12:15-12:30

**TU.E.2_O2 - $Mn_{1-x}Co_xWO_4$: x = 0.135 and x = 0.15: a study of the multiferroic state under high pressure**

M. Gooch [1], N. Poudel [1], B. Lorenz [1], K.C. Liang [1], Y.Q. Wang [1], Y.Y. Sun [1], J. Wang [2], J. Fernández-Baca [2], F. Ye [2], C.W. Chu [1,3]
*1. Texas Center for Superconductivity at The University of Houston, Houston, United States*
*2. Oak Ridge National Lab, Oak Ridge, United States*
*3. Lawrence Berkeley National Lab, Berkeley, United States*

12:30-12:45

**TU.E.2_O3 - Magon-Phonon interactions in Hexagonal Multiferroic $YMnO_3$**

A. Kreisel [1], S. Mukherjee [1], B.M. Andersen [1], T. Schäffer [1], S. Holm [1], K. Lefmann [1], N.C.R. Momsen [1], J. Larsen [2], A. Fennell [3], U. Stuhr [3]
*1. Niels Bohr Institute, University of Copenhagen, Copenhagen, Denmark*
*2. Institute of Physics, Technical University of Denmark, Lyngby, Denmark*
*3. Laboratory of Neutron Scattering, Paul Scherrer Institute, Villigen, Switzerland*
*4. Chalk River National Laboratory, Ontario, Canada*

12:45-13:00

**TU.E.2_O4 - Field-induced phase transitions and magnetoferroelectricity in the perfect triangular lattice antiferromagnet $RbFe(MoO_4)_2$ in a vertical magnetic field**

H. Mitamura [1], R. Watanuki [2], N. Onozaki [2], Y. Amou [2], Y. Kono [1], S. Kittaka [1], Y. Shimura [1], I. Yamamoto [2], K. Suzuki [2], T. Sakakibara [1]
*1. Institute for Solid State Physics, The University of Tokyo, Tokyo, Japan*
*2. Faculty of Engineering, Yokohama National University, Yokohama, United States*

13:00-13:15

**TU.E.2_O5 - Study of spin-lattice competition through hydrostatic pressure in $CdCr_2S_4$**

G. Oliveira [1,2], A. Dos Santos [3], Z. Gai [4], J. Pedro Araújo [2], A.M. Lima Lopes [2], A.M. Pereira [2]
*1. CFNUL - Centro de Física Nuclear, Universidade de Lisboa, Lisboa, Portugal*
*2. IFIMUP and IN-Institute of Nanoscience and Nanotechnology, Departamento de Física e Astronomia da Faculdade de Ciências da Universidade do Porto, Porto, Portugal*
*3. Quantum Condensed Matter Division, Oak Ridge National Laboratory, Oak Ridge, Untied States*
*4. Center for Nanophase Materials Sciences, Oak Ridge National Laboratory, Oak Ridge, United States*

13:15-13:30 **TU.E.2_O6 - Dual ferroic properties of hexagonal ferrite ceramics BaFe12O19 and SrFe12O19**

L. Panina[1] , V. Kostishyn[1], L. Kozhitov[1] , A. Timofeev[1], A. Zyuzin[2]
*1. National University of Science and Technology MISIS, Moscow, Russian Federation*
*2. Science and Technology Institute of Interbranch Information, Moscow, Russian Federation*

## TU.G.2_EXCHANGE BIAS AND EXCHANGE SPRINGS

**12:00-13:30 (ROOM B1-B3)**

**Chair:** Elena Vedmedenko

12:00-12:30 **Tu.G.2_I1 - Exchange bias of spring-like domain walls**

R. Morales [1], A.C. Basaran [2], J.E. Villegas [3], D. Navas [4], N. Soriano [5], B. Mora [5], C. Redondo [5], X. Batlle [6], I.K. Schuller [2]
*1. Department of Chemical-Physics & BCMaterials, University of the Basque Country UPV/EHU, and IKERBASQUE, Basque Foundation for Science, Bilbao, Spain*
*2. Department of Physics and Center for Advanced Nanoscience, University of California San Diego, United States*
*3. Unité Mixte de Physique CNRS/Thales, Palaiseau, and Université Paris Sud, France*
*4. IFIMUP-IN and Departamento Física e Astronomia, Universidade do Porto, Portugal*
*5. Department of Chemical-Physics, University of the Basque Country UPV/EHU, Leioa, Spain*
*6. Departament de Física Fonamental and Institut de Nanociència i Nanotecnologia, Universitat de Barcelona, Barcelona, Spain*

12:30-12:45 **TU.G.2_O2 - The Importance of Bulk Antiferromagnetic Spins in Exchange Bias**

T. Saerbeck [1], A.C. Basaran [2], J. de la Venta [3], H. Huckfeldt [4], A. Ehresmann [4], I.K. Schuller [2],
*1. Institut Laue-Langevin, Grenoble, France*
*2. Department of Physics and Center for Advanced Nanoscience, University of California San Diego, La Jolla, United States*
*3. Department of Physics, Colorado State University, Fort Collins, United States*
*4. Institute of Physics and Center for Interdisciplinary Nanostructure Science and Technology, University of Kassel, Kassel, Germany*

12:45-13:00 **TU.G.2_O3 - Isothermal switching of in-plane exchange bias in orthogonal coupled DyCo/NiFe bilayer**

D. Lott [1], K. Chen [2]
*1. Helmholtz Zentrum Geesthacht, Geesthacht, Germany*
*2. Synchrotron SOLEIL, Gif-sur-Yvette, France*

13:00-13:15

**TU.G.2_O4 - Extraordinary "EB-like" phenomenon in orthogonally coupled ferromagnets: $SmCo_5$ (perpendicular) /CoFeB and /NiFe (in-plane) bilayers**

A. Bollero [1], F.J. Pedrosa [1], J.L. Fdez Cuñado [1], J. Camarero [1,2], M. Seifert [3], V. Neu [3], V. Baltz [4], D. Serantes [5], O. Chubykalo-Fesenko [5], R. Pérez del Real [5]
*1. IMDEA Nanoscience, Madrid, Spain*
*2. Dep. de Física Materia Condensada, Inst. Nicolás Cabrera, UAM, Madrid, Spain*
*3. IFW Dresden, Institute for Metallic Materials, Dresden, Germany*
*4. SPINTEC, UMR-8191 CNRS/CEA-INAC/UJF, Grenoble, France*
*5. ICMM, Instituto de Ciencias de Materiales de Madrid, CSIC, Madrid, Spain*

13:15-13:30

**TU.G.2_O5 - Crystal structure and magnetic exchange bias effect in $UO_2/Fe_3O_4$ deposited on different substrates**

E. Tereshina [1], Z. Bao [2], L. Havela [3], S. Danis [3], A. Mackova [4], T. Gouder [5], R. Caciuffo [5]
*1. Institute of Physics ASCR, Prague, Czech Republic*
*2. PANalytical B.V., Almelo, The Netherlands*
*3. Department of Condensed Matter Physics, Faculty of Mathematics and Physics, Charles University, Prague, Czech Republic*
*4. Tandetron Laboratory, Nuclear Physics Institute of Academy of Sciences of the Czech Republic, Rez, Prague, Czech Republic*
*5. European Commission, Joint Research Centre (JRC), Institute for Transuranium Elements (ITU), Karlsruhe, Germany*

## TU.H.2_NON-FERMI LIQUIDS AND QUANTUM CRITICALITY

**12:00-13:30 (ROOM D1-D3)**

**Chair:** Gertrud Zwicknagl

12:00-12:30

**TU.H.2_I1 - Quantum Critical Behavior in Quasicrystals and Approximant Crystals**

N.Sato [1], S. Matsukawa[1], K. Nobe[1], K. Imura [1], K. Deguchi [1], T. Ishimasa [2]
*1. Department of Physics, Nagoya University, Japan*
*2. Department of Applied Physics, Hokkaido University, Japan*

12:30-12:45

**TU.H.2_O2 - Multiple quantum phase transitions in CeRhIn5**

H. Yuan [1], L. Jiao [1], Z. Weng [1], Y. Chen [1], F. Steglich[1,2], D. Graf [3], J. Singleton [4], M. Jaime [4], E. Bauer [4], J. Thompson [4]
*1. Center for Correlated Matter and Department of Physics, Zhejiang University, China*
*2. Max Planck Institute for Chemical Physics of Solids, Germany*
*3. National High Magnetic Field Laboratory, Florida State University, United States*
*4. Los Alamos National Laboratory, Los Alamos, United States*

12:45-13:00 **TU.H.2_O3 - Frustration at the Quantum Phase Transition in CePdAl**

V. Fritsch [1,2], A. Sakai [1], S. Lucas [3], Z. Hüsges [3], K. Grube [2], W. Kittler [2], C. Taubenheim [2], E. Green[4], O. Stockert [3], H. v. Löhneysen [2]

*1. Universität Augsburg, Institut für Physik, Experimentalphysik 6, Germany*

*2. Karlsruher Institut für Technologie (KIT), Germany*

*3. Max-Planck-Institut für chemische Physik fester Stoffe, Dresden, Germany*

*4. Helmholtz-Zentrum Dresden-Rossendorf, Germany*

13:00-13:15 **TU.H.2_O4 - Non-Fermi-liquid behavior in the THz response of CeCoIn5**

M. Scheffler [1], U. S. Pracht [1], M. Dressel [1], M. Shimozawa [2], R. Endo [2], T. Terashima [3], T. Shibauchi [2,4], Y. Matsuda [2]

*1. Physikalisches Institut, Universität Stuttgart, Germany*

*2. Department of Physics, Kyoto University, Japan*

*3. Research Center for Low Temperature and Materials Science, Kyoto University, Japan*

*4. Department of Advanced Materials Science, University of Tokyo, Japan*

13:15-13:30 **TU.H.2_O5 - Microscopic investigation of electronic inhomogeneity induced by substitutions in a quantum critical metal CeCoIn5**

E. Bauer [1], H. Sakai [2], F. Ronning [1], J.-X. Zhu [1], N. Wakeham [1], H. Yasuoka [1], Y. Tokunaga [2], S. Kambe [2], J. D. Thompson [1]

*1. Los Alamos National Laboratory, New Mexico, United States*

*2. Advanced Science Research Center, Japan Atomic Energy Agency, Japan*

## TU.I.2_MAGNETIC DEVICES AND NOVEL MATERIALS

**12:00-13:45 (ROOM D4-D6)**

**Chair:** Andrii Chumak

12:00-12:30 **TU.I.2_I1 - TO BE CONFIRMED**

12:30-12:45 **TU.I.2_O2 - Novel ways of shaping magnetic fields with superconducting-ferromagnetic metamaterials**

A. Sanchez [1], J. Prat-Camps [1], C. Navau [1].

*Universitat Autonoma Barcelona, Barcelona, Spain*

12:45-13:00 **TU.I.2_O3 - Thin-film magneto-impedance structures with very large sensitivity**

E. Fernández [2], A. García-Arribas [1,2], A. V. Svalov [1] N, G. V. Kurlyandskaya [1], J. M. Barandiaran [1,2]

*1. Departamento de Electricidad y Electrónica, Universidad Del País Vasco, UPV/EHU, Bilbao, Spain*

*2. BCMaterials, Universidad Del País Vasco, UPV/EHU, Bilbao, Spain*

13:00-13:15 **TU.I.2_O4 - Bioinspired Nanocomposite Tactile Sensor**

A. Alfadhel [1], J. Kosel [1]
*1. Computer, Electrical and Mathematical Sciences and Engineering Division (CEMSE), King Abdullah University Of Science And Technology (KAUST), Thuwal, Saudi Arabia*

13:15-13:30 **TU.I.2_O5 - Low Frequency Plasmonic State in FeNi/Cu Hybrid Granular Composite Materials**

T. Tsutaoka [1], H. Massango [1], T. Kasagi [2], S. Yamamoto [3], K. Hatakeyama [3]
*1. Hiroshima University, Hiroshima, Japan*
*2. National Institute of Technology, Tokuyama College, Japan*
*3. University of Hyogo, Japan*

13:30-13:45 **TU.I.2_O6 - Microwave shape resonance in magnetic microwires tuned by giant magnetoimpedance effect: sensing applications**

V. Lopez Dominguez [1], E. Riccardi [2], K. Osiak [3], P. Marin [1], A. Hernando[1]
*1. Instituto De Magnetismo Aplicado, Universidad Complutense De Madrid-CSIC-ADIF, Madrid, Spain*
*2. Department of Structures for Engineering and Architecture University of Naples Federico II, Naples, Italy*
*3. Faculty of Materials Science and Engineering, Warsaw University of Technology, Warsaw, Poland*

## TU.J.2_PERPENDICULAR MAGNETIC ANISOTROPY MATERIALS

**12:00-13:30 (ROOM E1-E3)**

**Chair:** Waldemar Macedo

12:00-12:30 **TU.J.2_I1 - Spin torque oscillators based on perpendicular and tilted magnetic anisotropy materials**

J. Akerman [1]
*1. University Of Gothenburg, Gothenburg, Sweden*

12:30-12:45 **TU.J.2_O2 - Electric-Field-Induced Magnetization Switching in Strained Au/FeCo/MgO Heterostructures**

N. Kioussis [1], P. Vu [1]
*1. California State University Northridge, Northridge, United States*

12:45-13:00 **TU.J.2_O3 - Development of dual magnetic tunnel junctions with perpendicular anisotropy and double polarizing layers**

L. Cuchet [1,2,3], B. Rodmacq [1,2,3], R. C. SoUnited States [1,2,3], S. Auffret [1,2,3], B. Dieny [1,2,3]
*1. Univ. Grenoble Alpes, INAC-SPINTEC, Grenoble, France*
*2. CEA, INAC-SPINTEC, Grenoble, France*
*3. CNRS, SPINTEC, Grenoble, France*

13:00-13:15 **TU.J.2_O4 - Evidence for In-Plane Tetragonal c-axis in Mn3Ga Thin Films using Transmission Electron Microscopy**

F. Casoli [1], J. Karel [2], P. Lupo [3], L. Nasi [1], S. Fabbrici [1,4], L. Righi [1,5], F. Albertini [1], C. Felser [2]
*1. IMEM - CNR, Parma, Italy*
*2. Max-Planck-Institut für Chemische Physik fester Stoffe, Dresden, Germany*
*3. Information Storage Materials Laboratory, Department of Electrical and Computer Engineering, National University of Singapore, Singapore*
*4. MIST E-R Laboratory, Bologna, Italy*
*5. Dipartimento di Chimica, Universitá di Parma, Parma, Italy*

13:15-13:30 **TU.J.2_O5 - Logic gates from out-of-plane magnetized nanowires**

R. Mansell [1], A. Beguivin [1], D. Petit [1], A. Fernández-Pacheco [1], J. Lee [1], R. Cowburn [1]
*1. Cavendish Laboratory, University of Cambridge, United Kingdom*

## TU. SEMIPLENARY-1

**16:00-16:45 (AUDITORIUM)**

**Chair:** Anne de Visser

16:00-16:45 **TU.SP-1 - Overview of Ce-115 based superconductors**

Joe Thompson
*Los Alamos National Laboratory, Los Alamos, United States*

## TU. SEMIPLENARY -2

**16:00-16:45 (ROOM J)**

**Chair:** Ricardo Ibarra

16:00-16:45 **TU.SP-2 - Phonons, Magnons and Spin Current**

Sadamichi Maekawa
*Advanced Science Research Center, Japan Atomic Energy Agency, Tokai, Japan*

## TU. SEMIPLENARY -3

**16:00-16:45 (ROOM F)**

**Chair:** Juan Bartolomé

16:00-16:45 **TU.SP-3 - Quantum tunneling of the magnetic moment: From molecules to collective effects**

Javier Tejada
*Dept. Fisica Fonamental, University of Barcelona, Barcelona, Spain*

## TU.A.3_SUPERCONDUCTIVITY AND MAGNETISM, INCLUDING EXOTIC SUPERCONDUCTIVITY

**17:15-18:30 (ROOM J)**

**Chair:** Ryusuke Ikeda

17:15-17:30

**TU.A.3_O1 - Magnetization of Underdoped YBCO above the Irreversibility Line**

J.F. Yu [1], I. Kokanovic [2,3], J. Day [4], R. Liang [4], W. Hardy [4], D. Bonn [4], A. McCollam [5], S. Julian [1,6], J. Cooper [3]
*1. Department of Physics, University of Toronto, Toronto, Canada*
*2. Department of Physics, University of Zagreb, Zagreb, Croatia*
*3. Cavendish Laboratory, University of Cambridge, Cambridge, United Kingdom*
*4. Department of Physics and Astronomy, University of British Columbia, Vancouver, Canada*
*5. High Field Magnet Laboratory, Nijmegen, The Netherlands*
*6. Canadian Institute for Advanced Research, Toronto, Canada*

17:30-17:45

**TU.A.3_O2 - Ferro-type order of magneto-electric quadrupoles in the pseudo-gap phase of $YBa_2Cu_3O_6 + x$**

S. W. Lovesey [1,2], D.D. Khalyavin [2], U. Staub [3]
*1. ISIS Facility, STFC Oxfordshire, United Kingdom*
*2. Diamond Light Source Ltd, Oxfordshire, United Kingdom*
*3. Swiss Light Source, Paul Scherrer Institut, Villigen, Switzerland*

17:45-18:00

**TU.A.3_O3 -The SU(2) symmetry in cuprate superconductors**

C. Pépin [1]
*1. IPhT, CEA – Saclay, France*

18:00-18:15

**TU.A.3_O4 - The Spin Glass Phase in Cuprates and Iron-Based High Temperature Superconductors**

J. Mydosh [1]
*1. Kamerlingh Onnes Laboratory, Leiden, The Netherlands*

18:15-18:30

**TU.A.3_O5 - High-pressure phase diagram and electronic structure of FeSe**

T. Terashima
*National Institute For Materials Science, Tsukuba, Japan*

## TU.B.3_MAGNETIC NANOPARTICLES

**17:15-18:15 (ROOM F)**

**Chair:** Sara Majetich

17:15-17:30

**TU.B.3_O1 - Anisotropic Interaction of Ferromagnetic Nanoparticles Intercalated Inside Carbon Nanotubes**

S. Prischepa [1], A. Danilyuk [1], I. Komissarov [1], V. Labunov [1], F. Le Normand [2], A. Derory [3], J. Manel Hernández [4], J. Tejada [4]
*1. Belarusian State University of Informatics and Radioelectronics, Minsk, Bielorussia*

*2. Laboratory of Engineering, Informatics and Imagery (ICube), University of Strasbourg and CNRS, Strasbourg, France*
*3. IPCMS, University of Strasbourg and CNRS, Strasboug, France*
*4. University of Barcelona, Barcelona, Spain*

17:30-17:45

**TU.B.3_O2 - Static and dynamic magnetization behavior of magnetic multi-core nanoparticles**

C. Johansson [1], F. Ahrentorp [1], A. Sarwe [1], J. Blomgren [1], C. Jonasson [1], R. Stjernberg Bejhed [2], E. Wetterskog [2], P. Svedlindh [2], F. Ludwig [3], F. Westphal [4]
*1. Acreo Swedish ICT AB, Göteborg, Sweden*
*2. Department of Engineering Sciences, Division of Solid State Physics, Uppsala University, Uppsala, Sweden*
*3. Institute of Electrical Measurement and Fundamental Electrical Engineering, Braunschweig, Germany.*
*4. Micromod Partikeltechnologie GmbH, Rostock, Germany*
*5. Instituto de Ciencia de Materiales de Madrid, ICMM-CSIC, Madrid, Spain*
*6. Department of Applied Physics, Chalmers University of Technology, Göteborg, Sweden*
*7. Chalmers Industriteknik, Chalmers Science Park, SE-412 88 Göteborg, Sweden*

17:45-18:00

**TU.B.3_O3 - Quantifying dipolar interaction effects in Fe oxide nanoparticles coated with oleic acid or silica by comparison with simulations**

C. Moya [1], O. Iglesias [1], X. Batlle [1], A. Labarta [1]
*1. Dpt. Física Fonamental and IN2UB, Universitat de Barcelona, Barcelona, Spain*

18:00-18:15

**TU.B.3_O4 - MnBi magnetic nanoparticles: New synthesis to realize rare-earth replacement nanomaterials**

M. Rowe [1], E. Skoropata [2], Y. Wroczynskyj [2], J. van Lierop [2]
*1. Toyota Research Institute of North America, United States*
*2. University of Manitoba, Winnipeg, Canada*

## TU.C.3_MAGNETIC PHASE TRANSITION AND MAGNETIC INTERACTIONS

**17:15-18:30 (ROOM H1)**

**Chair:** Juan Rodríguez-Carvajal

17:15-17:30

**TU.C.3_O1 - New results for triangular-lattice quantum antiferromagnets in a magnetic field**

G. Marmorini [1], D. Yamamoto [2], I. Danshita [1]
*1. YITP Kyoto, Kyoto, Japan*
*2. Waseda Institute for Advanced Studies, Tokyo, Japan*

17:30-17:45 **TU.C.3_O2 - Study of magnetic phase transitions and magnetostriction by means of reversible Villari effect**

S. Kustov [1], A. el Hichou [1], M.L. Corró [1]
*1. Departament de Física, Universitat de Les Illes Balears, Palma de Mallorca, Spain*

17:45-18:00 **TU.C.3_O3 - Magnetic ordering in magnetic shape memory alloy Ni-Mn-In-Co**

K. Ollefs [1], C. Schöppner [2], I. Titov [2,3], R. Meckenstock [2], F. Wilhelm [1], A. Rogalev [1], J. Liu [3], O. Gutfleisch [3], M. Farle [2], H. Wende [2]
*1. European Synchrotron Radiation Facility (ESRF), Grenoble, France*
*2. Fakultät für Physik and Center for Nanointegration Duisburg-Essen (CeNIDE), Universität Duisburg-Essen, Duisburg, Germany*
*3. Faculty of Physics, M.V.Lomonosov Moscow State University, Moscow, Russian Federation*
*4. Materials Science, Technische Universität Darmstadt, Darmstadt, Germany*

18:00-18:15 **TU.C.3_O4 - The influence of the magnetic structure on phase transformations in Ni-Mn-Sn Heusler alloys – a phase diagram**

K. Zaleski [1], M. Ekholm [2], B. Alling [2], I.A. Abrikosov [2], J. Dubowik [3]
*1. NanoBioMedical Centre, Adam Mickiewicz University, Poznan, Poland*
*2. Department of Physics, Chemistry and Biology, Linköping University, Linköping, Sweden*
*3. Institute of Molecular Physics, Polish Academy of Sciences, Poznan, Poland*

18:15-18:30 **TU.C.3_O5 - Spin-stripe phase in a frustrated spin chain**

*M. Pregelj* [1]
*1. Jožef Stefan Institute, Ljubliana, Slovenia*

## TU.D.3_MATERIALS FOR ENERGY APPLICATIONS

**17:15-18:15 (ROOM H2)**

**Chair:** Anne-Lise Adenot-Engelvin

17:15-17:30 **TU.D.3_O1 - In-situ neutron investigation of hydrogen absorption kinetics in La(FexSi1-x)13 magnetocaloric alloys for room-temperature refrigeration application**

X. Hai [1,2], C. Mayer [2], C.V. Colin [1], S. Miraglia [1]
*1. Univ. Grenoble Alpes, Institut Néel, Grenoble, France*
*2. Erasteel SAS, Tour Maine Montparnasse, Paris, France*

17:30-17:45 **TU.D.3_O2 - Prototype energy harvesting device using high permeability amorphous ribbon**

J. Samaniego [1], A. Mitra [2], C. Gómez-Polo [1]
*1. Universidad Pública de Navarra, Pamplona, Spain*
*2. CSIR-National Metallurgical Laboratory, New Delhi, India*

17:45-18:00 **TU.D.3_O3 - An in-situ computed tomography study of the magnetovolume transition in $LaFe_{11.8}Si_{1.2}$**

A. Waske [1], A. Funk [1,2], A. Rack [3], J. Eckert [1,2]
*1. Institute for Complex Materials, Dresden, Germany*
*2. Institute for Materials Science, Dresden, Germany*
*3. ID - 19, ESRF, Grenoble, France*

18:00-18:15 **TU.D.3_O4 - Element resolved thermodynamics of magnetocaloric $LaFe_{13-x}Si_x$**

H. Wende [1], M. Gruner [1,2], W. Keune [1,3], B. Roldßn Cuenya [4], C. Weis [1], J. Landers [1], S. Makarov [1,3], D. Klar [1], M.Y. Hu [5], E.E. Alp [5]
*1. University of Duisburg-Essen, Faculty of Physics and Center for Nanointegration Duisburg-Essen (CENIDE), Germany*
*2. IFW Dresden, Germany*
*3. Max Planck Institute of Microstructure Physics, Halle, Germany*
*4. Department of Physics, Ruhr-University Bochum, Germany*
*5. Advanced Photon Source, Argonne National Laboratory, United States*
*6. Materials Science, TU Darmstadt, Germany*

## TU.E.3_THIN FILM NANOSTRUCTURES

**17:15-18:15 (ROOM H3)**

**Chair:** Laura Steren

17:15-17:45 **TU.E.3_I1 - Transport With Bose-Einstein Magnon Condensates**

B. Hillebrands [1], P. Clausen [1], D.A. Bozhko [1,2], V.I. Vasyuchka [1], G.A. Melkov [3], A.A. Serga [1]
*1. Fachbereich Physik and Landesforschungszentrum OPTIMAS, Technische Universität Kaiserslautern, Germany*
*2. Graduate School Materials Science In Mainz, Kaiserslautern, Germany*
*3. Faculty of Radiophysics, Electronics and Computer Systems, Taras Shevchenko National University of Kyiv, Ukraine*

17:45-18:00 **TU.E.3_O2 - Controlling the magnetic properties of spinel ferrite nanoparticles by chemical tuning**

C. Sangregorio [1], M. Albino [2], V. Bonanni [2], G. Campo [2], P. Ghigna [3], J.M. Greneche [4], D. Peddis[5], F. Pineider [2], N. Yaacob [4], C. de Julián Fernández [6]
*1. CNR-ICCOM & INSTM, Sesto Fiorentino, Italy*
*2. INSTM-LaMM, Dip. di Chimica "U. Schiff", Univ. di Firenze, Sesto Fiorentino, Italy*
*3. Dip. Di Fisica, Univ. di Pavia, Pavia, Italy*
*4. Universitþ du Maine, Laboratoire de Physique de l'Etat Condense, Le Mans, France*
*5. CNR-ISM, Monterotondo Scalo, Italy*
*6. CNR-IMEM & INSTM, Parma, Italy*

18:00-18:15 **TU.E.3_O3 - Ledge-type Co/L10-FePt exchange-coupled composites**

T. Speliotis [1], G. Giannopoulos [1], D. Niarchos [1], W. Li [2], G. Hadjipanayis [2], G. Barucca [3], E. Agostinelli [4], S. Laureti [4], D. Peddis [4], A.M. Testa [4] , D. Fiorani [4], G. Varvaro [4]
*1. Institute of Materials Science, NCSR Demokritos, Athens, Greece*
*2. Department of Physics, University of Delaware, Newark, United States*
*3. SIMAU, Università Politecnica delle Marche, Ancona, Italy*
*4. Istituto Di Struttura Della Materia - CNR, Monterotondo Scalo, Roma, Italy*

## TU.F.3_HEAVY FERMIONS PHYSICS INCLUDING VALENCE AND CHARGE FLUCTUATIONS

**17:15-18:15 (ROOM A)**

**Chair:** Nicolas Doiron-Leyraut

17:15-17:30 **TU.F.3_O1 - Chirality density wave of the "hidden order" phase in $URu_2Si_2$**

G. Blumberg [1], K. Haule [1], H. Kung [1], John Mydosh [2], R. Baumbach [3], E. Bauer [3]
*1. Rutgers University, Piscataway, United States*
*2. Kamerlingh Onnes Laboratory, Leiden University, Leiden, The Netherlands*
*3. Los Alamos National Laboratory, Los Alamos, New Mexico, United States*

17:30-17:45 **TU.F.3_O2 - Cubic Hastatic Order**

R. Flint [1]
*1. Iowa State University, Ames, United States*

17:45-18:00 **TU.F.3_O3 - Heavy fermion superconductivity and double multipolar transition in PrV2Al20**

Y. Matsumoto [1], M. Tsujimoto [1], A. Sakai [1], T. Tomita [1], S. Nakatsuji [1]
*1. ISSP, Univ. of Tokyo, Tokyo, Japan*

18:00-18:15 **TU.F.3_O4 - Observation of a magnetic-resonance excitation mode in the Kondo insulator $CeFe_2Al_{10}$**

J.M. Mignot [1]
*1. Laboratoire Leon Brillouin, CEA-CNRS, Gif sur Yvette, France*

## TU.G.3_EXCHANGE BIAS AND EXCHANGE SPRINGS

**17:15-18:30 (ROOM B1-B3)**

**Chair:** Lluis Balcells

17:15-17:30 **TU.G.3_O1 - Thermal and spatial confinement effects in exchange coupled IrMn/NiFe dot arrays**

F. Spizzo [1], E. Bonfiglioli [1], M. Tamisari [1,2], A. Gerardino [3], G. Barucca [4], A. Notargiacomo [3], F. Chinni [1], L. Del Bianco [5]
*1. Dipartimento di Fisica e Scienze della Terra, Università di Ferrara, Ferrara, Italy*
*2. Dipartimento di Fisica e Geologia, CNISM Università di Perugia, Perugia, Italy*

3. Istituto di Fotonica e Nanotecnologie, Roma, Italy
4. Dipartimento SIMAU, Università Politecnica delle Marche, Ancona, Italy
5. Dipartimento di Fisica e Astronomia, Università di Bologna, Bologna, Italy

17:30-17:45 **TU.G.3_O2 - Bridging amount of disordered magnetic phases located over ferromagnetic/antiferromagnetic thin films and cell to cell variability of exchange bias in corresponding TA-MRAM chips**

K. Akmaldinov [1,2,3,4], L. Frangou [1,2,3], C. Ducruet [4], C. Portemont [4], J. Pereira [4], I. Joumard [1,2,3], B. Dieny [1,2,3], J. Alvarez-Hérault [4], V. Baltz [1,2,3]
1. Univ. Grenoble Alpes, SPINTEC, Grenoble, France
2. CNRS, SPINTEC, Grenoble, France
3. CEA, INAC-SPINTEC, Grenoble, France
4. CROCUS Technology, Grenoble, France

17:45-18:00 **TU.G.3_O3 - Phase diagram in exchange biased CoTb/[Co/Pt] multilayer based magnetic tunnel junctions**

M. Bersweiler [1], D. Lacour [1], K. Dumesnil [1], F. Montaigne [1], M. Hehn [1]
1. Institut Jean Lamour, Nancy, France

18:00-18:15 **TU.G.3_O4 - Search for exchange bias effect in antiferromagnetic Heusler alloy -ferromagnet bilayers**

E. Simon [1], S. Khmelevskyi [1], R. Yanes-Diaz [2], L. Szunyogh [1], U. Nowak [2]
1. Department of Theoretical Physics, Budapest University of Technology and Economics, Budapest, Hungary
2. Department of Physics, University of Konstanz, Konstanz, Germany

18:15-18:30 **TU.G.3_O5 - IrMn/MgO-based tunneling junctions for room temperature antiferromagnet spintronics: effect of Mgo and IrMn thickness**

M. Cantoni [1], C. Rinaldi [1], L. Baldrati [1], S. Bertoli [1], M. Asa [1], D. Petti [1], E. Albisetti [1], R. Bertacco[1]
1. Politecnico Di Milan, Milano, Italy

## TU.H.3_VORTEX AND SKYRMION DYNAMICS

**17:15-18:15 (ROOM D1-D3)**

**Chair:** Kirsten von Bergmann

17:15-17:45 **TU.H.3_I1 - Dynamics of chiral spin systems: soliton lattices, defects and spinwaves**

R. Stamps [1]
1. University Of Glasgow, Glasgow, United Kingdom

17:45-18:00 **TU.H.3_O2 - Asymmetric Wave Propagation in Skyrmion String in Chiral Magnets**

J. Iwasaki [1], C. Schütte [2], N. Nagaosa [3]
1. University of Toky, Tokyo, Japan
2. Universität zu Köln, Köln, Germany
3. RIKEN, Saitama, Japan

18:00-18:15 **TU.H.3_O3 - Neutron spin-echo spectroscopy of spin fluctuations in the skyrmion lattice phase of MnSi**

F. Haslbeck [1], J. Kindervater [1], A. Bauer [1], W. Häußler[1,2], P. Böni [1], C. Pfleiderer [1]
*1. Physics Department, TU Munich, Germany*
*2. Heinz Maier-Leibnitz Zentrum, TU Munich, Germany*

## TU.I.3_ELECTRONIC STRUCTURE. ITINERANT ELECTRON MAGNETISM. HALF METALS. INSULATORS

**17:15-18:15 (ROOM D4-D6)**

**Chair:** Josef Kudrnovsky

17:15-17:30 **TU.I.3_O1 - Evidence of a spin-polarized resonant surface state in (111) $Sm_{1-x}Gd_xAl_2$, a zero-magnetization ferromagnet**

K. Dumesnil [1], M. Bersweiler [1], D. Lacour [1], M. Hehn [1], P. Lefevre [2]
*1. Institut Jean Lamour, Université de Lorraine and CNRS, Nancy, France*
*2. Synchrotron SOLEIL, Gif sur Yvette, France*

17:30-17:45 **TU.I.3_O2 - Ab-initio calculations of Gilbert damping parameters in doped Permalloy systems.**

L. Bergqvist [1], F. Pan [1], A. Bergman [2], A. Delin [1]
*1. KTH Royal Institute Of Technology, Stockholm, Sweden*
*2. Uppsala University, Uppsala, Sweden*

17:45-18:00 **TU.I.3_O3 - Experimental evidences of first-time reported (100) in-plane easy axis in magnetite films grown onto different single-crystal substrates**

J. Fdez Cuñado [1], Y, F. Pedrosa [1,2], M. Sanz [3], M. Oujja [3], E. Rebollar [3], J. Marco [3], J. de la Figuera[3], M. Monti [3], M. Castillejo [3], M. García-Hernández [4]
*1. IMDEA Nanoscience, Madrid, Spain*
*2. Ingeniería Magnética Aplicada, IMA S.L., Barcelona, Spain*
*3. Instituto Química Física Rocasolano, CSIC, Madrid, Spain*
*4. Instituto Ciencias de Materiales de Madrid, CSIC, Madrid, Spain*
*5. Dep. Fisica Aplicada III, UCM, Madrid, Spain*
*6. Institute of Condensed Matter Physics, EPFL-SB-ICMP-LPMC, LaUnited Statesnne, Switzerland*
*7. Dep. Física de la Materia Condensada, Instituto Nicolás Cabrera, UAM, Madrid, Spain*

18:00-18:15 **TU.I.3_O4 - Orbital magnetism of coupled bands models**

J. Fuchs [1,2], Arnaud Raoux [2,3], F. Piéchon [2], G. Montambaux [2]
*1. Laboratoire de Physique Théorique de la matière Condensée, CNRS and Université Pierre Et Marie Curie, Paris, France*
*2. Laboratoire de Physique des Solides, CNRS and Université Paris-Sud, France*
*3. Département de Physique, Ecole Normale Supérieure, Paris, France*

## TU.J.3_MOLECULAR MAGNETISM

**17:15-18:15 (ROOM E1-E3)**

**Chair:** Marco Affronte

17:15-17:30

**TU.J.3_O1 - The key role of thermal motion on the structure and magnetic properties of dithiazolyl-based bistable molecular materials**

S. Vela [1,2], M. Deumal [2], M. Shiga [3], J. Novoa [2], Jordi Ribas-Arino [2]
*1. Laboratoire de Chimie Quantique, Université de Strasbourg, Strasbourg, France*
*2. Departament de Química Física and IQTCUB, Universitat de Barcelona, Barcelona, Spain*
*3. Center for Computational Science and E-Systems, Japan Atomic Energy Agency, 5-1-5, Kashiwanoha, Kashiwa, , Japan.*

17:30-17:45

**TU.J.3_O2 - XMCD at the Fe K-edge in Fe Phthalocyanine on Au: an insight into the ground state**

J. Bartolomé [1], C. R. Natoli [2], F. Bartolomé [1], O. Bunau [1], A. Figueroa [3], L. García [1], M. Piantek [4], J.I. Pascual [5], I. K. Schuller [6], T. Gredig [7]
*1. ICMA - Dept. Física de la Materia Condensada, CSIC - Universidad de Zaragoza*
*2. INFN - Laboratori Nazionali di Frascati, Frascati, Italy*
*3. Magnetic Spectroscopy Group, Diamond Light Source, Didcot, United Kingdom*
*4. INA, Universidad de Zaragoza, Zaragoza, Spain*
*5. CIC nanoGUNE and Ikerbasque, Basque Foundation for Science, San Sebastian, Spain*
*6. Department of Physics and Center for Advanced Nanotechnology, University of California San Diego, La Jolla, United States*
*7. Department of Physics and Astronomy, California State University Long Beach, Long Beach, United States*
*8. ESRF-The European Synchrotron, Grenoble, France*
*9. Graduate School of Advanced Integration Science, Chiba University, 1-33 Yayoi-cho, Inage, Chiba, Japan*

17:45-18:00 **TU.J.3_O3 - Exchange bias of TbPc2 molecular magnets on antiferromagnetic FeMn and ferromagnetic Fe films**

C. Nistor [1], C. Krull [2], A. Mugarza [3], S. Stepanow [4], C. Stamm [5], M. Soares [6], S. Klyatskaya [7], M. Ruben [8], P. Gambardella [9]
*1. ETH, Dept Mat, Zurich, Switzerland*
*2. Catalan Institute of Nanotechnology, Barcelona, Spain*
*3. Catalan Institute of Nanotechnology, Barcelona, Spain*
*4. ETH, Dept Mat, Zurich, Switzerland*
*5. ETH, Dept Mat, Zurich, Switzerland*
*6. ESRF, Grenoble, France*
*7. KIT, Inst Nanotechnol, Eggenstein Leopoldshafen, Germany*
*8. KIT, Inst Nanotechnol, Eggenstein Leopoldshafen, Germany*
*9. ETH, Dept Mat, Zurich, Switzerland*

18:00-18:15 **TU.J.3_O4 - Spin spectroscopy of single magnetic molecules with a radio frequency scanning tunneling microscope**

S. Mullegger [1], S. Tebi [1], R. Koch [1]
*1. Institute of Semiconductor and Solid State Physics, Johannes Kepler University Linz, Austria*

# WEDNESDAY , 8 JULY

## PLENARY-3

**08:30-09:30 (AUDITORIUM)**

**Chair:** Sergio Rezende

08:30-09:30 **PLENARY 3 - Spin current generators**
Eiji Saitoh
*WPI-AIMR, Tohoku University, Sendai, Japan*

## WE.SYM_BIOMEDICAL APPLICATIONS AND MAGNETIC NANOPARTICLES

**09:30-12:30 (AUDITORIUM)**

**Chair:** Kevin O'Grady

09:30-10:00 **WE.SYM_1 - Membrane damage caused by magnetic hyperthermia on microglial cells.**
Gerardo Goya
*Institute Of Nanoscience Of Aragon, Zaragoza, Spain*

10:00-10:30 **WE.SYM_2 - Engineered nanoparticles for Magnetic Particle imaging: Tailoring physics and chemistry to clinical applications**
Kannan Krishnan
*University Of Washington, Seattle, United States*

10:30-11:00 **WE.SYM_3 - Can the Synthesis Technology and Properties of Magnetite Nanoparticles Cater the Needs of Biomedical Applications?**
Jeyadevan Balachandran
*The University Of Shiga Prefecture, Hikone, Japan*

11:30-12:00 **WE.SYM_4 - Albumin-SPIONs: protein surface binding, nanoparticles uptake and fate in cells and C. elegans.**
Anna Roig
*Institut De Ciència De Materials De Barcelona (ICMAB-CSIC), Bellaterra, Spain*

12:00-12:30 **WE.SYM_5 - Dual Drug Carrier for Thermo-chemotherapy of Cancer**
Dhirendra Bahadur
*Center for Research in Nanotechnology and Science, Indian Institute of Technology-Bombay, Mumbai, India*

## WE.A.1_SUPERCONDUCTIVITY AND MAGNETISM, INCLUDING EXOTIC SUPERCONDUCTIVITY

**09:30-11:00 (ROOM J)**

**Chair:** Takashi Hotta

09:30-09:45 **WE.A1_O1 - Spin fluctuations in superconducting iron selenide (FeSe) and derivatives**
M. Rahn [1], R. Ewings [2], S. Sedlmaier [3], S. Clarke [3], A. Boothroyd [1]
*1. Department of Physics, Oxford University, United Kingdom*
*2. ISIS Facility, STFC Rutherford Appleton Laboratory, United Kingdom*
*3. Department of Chemistry, Oxford University, United Kingdom*

09:45-10:00 **WE.A1_O2 - Competing Magnetic Phases, and Emergent Defect States as a Source of Resistivity Anisotropy in the Nematic Phase of Iron Pnictides**

B. M. Andersen [1]
*1. University Of Copenhagen, Copenhagen, Denmark*

10:00-10:15 **WE.A.1_O3 - Synthesis and characterization of new heavy fermion compound CePdIn5**

K. Uhlirova [1], J. Prokleska [1], B. Vondrackova [1], M. Kratochvilova [1], M. Dusek [2], J. Custers [1], V. Sechovsky [1]
*1. Charles University In Prague, Faculty Of Mathematics And Physics, Department of Condensed Matter Physics, Praha, Czech Republic*
*2. Institute of Physics ASCR, Department of Structure Analysis, Praha, Czech Republic*

10:15-10:30 **WE.A.1_O4 - Comparative orbital fluctuation study in iron pnictides by spectroscopic methods**

Y. Koh [1,49], Y. Kim [2] N, J.Seo [1], M. Eom [3], J. Kim [3], B. Park [4], J. Kim [4], C. Kim [1]
*1. Yonsei University, Seoul, Republic of Korea*
*2. Advanced Light Source, Berkeley, United States*
*3. Pohang University of Science and Technology, Pohang, Republic of Korea*
*4. Pohang Light Source, Pohang, Republic of Korea*

10:30-10:45 **WE.A.1_O5 - Nematic-driven anisotropic electronic properties of underdoped detwinned Ba(Fe1−xCox)2As2 revealed by optical spectroscopy**

L. Degiorgi [1]
*1. ETH Zurich, Department Of Physics, Zurich, Switzerland*

10:45-11:00 **WE.A.1_O6 - Orbital-driven nematicity in FeSe**

S. Baek [1], D. Efremov [1], J. Mok Ok [2], J. Sung Kim [2], J. van den Brink [1], B. Buechner [1]
*1. IFW Dresden, Dresden, Germany*
*2. Pohang University of Science and Technology, Republic of Korea*

## WE.C.1_FERROICS AND MULTIFERROICS

**09:30-11:00 (ROOM H1)**

**Chair:** Urs Staub

09:30-10:00 **WE.C.1_I.1 - Spin Degrees Of Freedom In Relativistic Ferroelectrics**

Silvia Picozzi
*1. Consiglio Nazionale Delle Ricerche CNR-SPIN, L'Aquila, Italy*

10:00-10:15 **WE.C.1_O2 - Tiny cause with huge impact: polar instability through strong magneto-electric-elastic coupling in bulk EuTiO3**

A. Bussmann-Holder [1], P. Reuvekamp [1], K. Caslin [1], R. Kremer [1], J. Köhler [1]
*1. Max-Planck-Institute For Solid State Research, Germany*

10:30-11:00 **WE.C.1_I4 - Coupled electricity and magnetism in solids: currents, dipoles and monopoles in frustrated systems and in magnetoelectrics**

D. Khomskii [1]
*1. II. Physikalisches Institut, Universitaet Zu Koeln, Köln,Germany*

## WE.D.1_MATERIALS FOR ENERGY APPLICATIONS

**09:30-11:00 (ROOM H2)**

**Chair:** Victorino Franco

09:30-10:00 **WE.D.1_I1 - Origin of hysteresis in multicaloric materials**

S. Fähler [1], M. E. Gruner [2], H. Seiner [3], R. Niemann [1], L. Schultz [1]
*1. IFW Dresden, Dresden, Germany*
*2. University of Duisburg-Essen, Essen, Germany*
*3. Institute of Thermomechanics, Academy of Sciences of Czech Republic, Prague, Czech Republic*

10:00-10:15 **WE.D.1_O2 - Increasing the achievable state of order in Ni-Mn-based Heusler alloys**

P. Neibecker [1], M. Leitner [1], G. Benka [2], W. Petry [1]
*1. Heinz Maier-Leibnitz Zentrum (MLZ), Technische Universität München, Garching Germany*
*2. Physics Department, Technische Universität München, Garching, Germany*

10:15-10:30 **WE.D.1_O3 -Characteristics of Intermartensitic Transitions in Ni-Mn Based Heusler Alloys**

A. Çakir
*1.Metalurgical and Materials Engineering Department, Mugla University, Mugla, Turkey*

10:30-10:45 **WE.D.1_O4 - Atomic and magnetic structure and magnetocaloric properties of AlFe2B2**

J. Cedervall [1], M. Andersson [2], T. Sarkar [2], E. Delczeg [3], L. Häggström [3], T. Ericsson [3], P. Nordblad[2], M. Sahlberg [1]
*1. Chemistry – Angstrom, Uppsala University, Uppsala, Sweden*
*2. Engineering Sciences, Uppsala University, Uppsala, Sweden*
*3. Physics and Astronomy, Uppsala University, Uppsala, Sweden*

10:45-11:00 **WE.D.1_O5 - Study of magneto-elastic properties in shape-memory Heusler alloys by resonant ultrasound spectroscopy**

C. Salazar Mejía [1], N. O. Born [1], A. K. Nayak [1], C. Felser [1], M. Nicklas [1], J. Schiemer [2], M. A. Carpenter [2]
*1. Max Planck Institute For Chemical Physics Of Solids, Dresden, Germany*
*2. Department of Earth Sciences, University of Cambridge, Cambridge, United Kingdom*

## WE.E.1_THIN FILM NANOSTRUCTURES

**09:30-11:00 (ROOM H3)**

**Chair:** Niklas Romming

09:30-10:00

**WE.E.1_I1 - Spin to charge current conversion in metal/oxide interfaces**


Y. Otani [1,2], Y. Niimi [1,2], K. Kondou [2], S. Karube [1,2]

*1. ISSP University Of Tokyo, Tokyo, Japan*

*2. RIEN-CEMS*


10:00-10:15

**WE.E.1_O2 - Magnetic Characteristics of CoPd and FePd Antidot Arrays on Nanoperforated $Al_2O_3$ and $Ti_{O2}$ Templates**


A. Maximenko [1,2], M. Marszalek [1], J. Fedotova [2], A. Zarzycki [1], Y. Zabila [1], B. Jany [3], F. Krok [3]

*1. The Henryk Niewodniczanski Institute Of Nuclear Physics Polish Academy Of Sciences, Krakow, Poland*

*2. Research Institute for Nuclear Problems of Belarusian State University, Minsk, Belarus*

*3. Institute of Physics, Jagiellonian University, Krakow, Poland*

*4. The Henryk Niewodniczanski Institute of Nuclear Physics Polish Academy of Sciences, Krakow, Poland*


10:15-10:30

**WE.E.1_O3 - Nuclear Resonant GISAXS: Spatially resolved magnetic ordering and magnetization reorientation in a Fe film with periodically varying thickness.**


D. Erb [3], K. Schlage [1], L. Bocklage [1], R. Rüffer [2], H. C. Wille [1], R. Röhlsberger [1]

*1. Deutsches Elektronen-Synchrotron DESY, Hamburg, Germany*

*2. European Synchrotron Radiation Facility ESRF, Grenoble, France*

*3. University of Hamburg, Hamburg, Germany*


10:30-10:45

**WE.E.1_O4 - Towards magnetic tomography of 3D structures at the nanoscale**


C. Donnelly [1,2], M. Guizar-Sicairos [2], V. Scagnoli [1,2], M. Holler [2], T. Huthwelker [2], A. Menzel [2], I. Vartiainen [2], E. Mueller [2], E. Kirk [1,2], S. Gliga [1,2]

*1. Laboratory for Mesoscopic Systems, Department of Materials, Zurich, Switzerland*

*2. Paul Scherrer Institute, Villigen, Switzerland*

10:45-11:00

**WE.E.1_O5 - Anisotropic magnetic-field-induced phase transition in MnAs nanoribbons**

L.B. Steren [1,2,3], F. Fernández Baldis [2,3,4], M. Sirena [2,4], V.H. Etgens [5], M. Eddrief [5], C. Ulysse [6], G. Faini [6]
*1. Centro Atomico Constituyentes, San Martin, Argentina*
*2. Consejo Nacional de Investigaciones Científicas y Técnicas, Buenos Aires, Argentina*
*3. Laboratorio Internacional Franco-Argentino en Nanociencias (LIFAN), Buenos Aires, Argentina*
*4. Centro Atómico Bariloche, Instituto Balseiro - CNEA & Univ. Nac. de Cuyo, Bariloche, Rio Negro, Argentina*
*5. Institut des NanoSciences de Paris, UPMC, Paris, France*
*6. LPN-CNRS, Route de Nozay, Marcoussis, France*

## WE.F.1_MAGNETIC NANORODS, NANOWIRES AND NANOTUBES

**09:30-11:00 (ROOM A)**

**Chair:** Mattias Kläui

09:30-10:00

**WE.F.1_I1 - A unified phase diagram of domain walls in 1d systems, ranging from strips to cylindrical wires**

S. Jamet [1,2], N. Rougemaille [1,2], C. Thirion [1,2], J.C. Toussaint [1,2], O. Fruchart [1,2]
*1. Univ. Grenoble Alpes, Institut NEEL, Grenoble, France*
*2. CNRS, Institut NEEL, Grenoble, France*

10:00-10:15

**WE.F.1_O2 - Magnetic structure of core-shell iron-iron oxide nanowires.**

I. Ivanov [1], A. Alfadhel [1], M. Alnassar [1], M. Vazquez [2], J. Kosel [1]
*1. King Abdullah University Of Science And Technology (KAUST), Thuwal, Saudi Arabia*
*2. Institute of Materials Science of Madrid, CSIC, Madrid, Spain*

10:15-10:30

**WE.F.1_O3 - Electron holography of magnetic states in cylindrical Co/Cu multilayered nanowires**

N. Biziere [1], D. Reyes [1], B. Warot-Fonrose [1], T. Wade [2], C. Gatel [1]
*1. CEMES, UPR 8011 CNRS, Toulouse, France*
*2. LSI, UMR 7642 CEA/CNRS/Ecole Polytechnique, Ecole Polytechnique, Palaiseau, France*

10:30-10:45

**WE.F.1_O4 - Magnetization reversal of a single modulated magnetic nanowire**

C. Bran [1], E. Berganza [1], E. M. Palmero [1], R. P. del Real [1], A. Fraile Rodríguez [2], A. Asenjo [1], M. Vazquez [1]
*1. Instituto de Ciencia de Materiales de Madrid (ICMM)-CSIC, Madrid, Spain*
*2. Departament de Física Fonamental and Institut de Nanociència i Nanotecnologia (IN2UB), Universitat de Barcelona, Barcelona, Spain*

10:45-11:00 **WE.F.1_O5 - Asymmetric spin wave propagation in thin films with Dzyaloshinskii-Moriya coupling**

D. Cortés-Ortuño [1,2], N, M. Opazo-Damiani [1], R. Troncoso [1], R. Gallardo [1], P. Landeros [1]
*1. Departamento De Física, Universidad Técnica Federico Santa María, Valparaíso, Chile*
*2. Institute for Complex Systems Simulation, University of Southampton, Southampton, United Kingdom*

## WE.G.1_SPIN-ORBIT AND SPIN-LATTICE COUPLING

**09:30-11:00 (ROOM B1-B3)**

**Chair:** Atsufumi Hirohata

09:30-10:00 **WE.G.1_I1 - Berry curvature, Hall effect and topological edge modes of magnons**

S. Murakami [1]
*1. Tokyo Institute Of Technology, Meguro, Japan*

10:00-10:15 **WE.G.1_O2 - The inverse thickness proportionality of the interfacial Dzyaloshinskii-Moriya interaction on the Pt/Co(CoFeB)/Al2O3 inverse symmetry broken structure**

J. Cho [1], N.H. Kim [1], S. Lee [1], J.S. Kim [2], R. Lavrijsen [2], A. Solignac [2], Y. Yin [2], D.S. Han [2], N. Hoof [2], H. Swagten [2]
*1. Department of Physics, Inha University, Incheon, Republic of Korea*
*2. Department of Applied Physics, Center for NanoMaterials, Eindhoven University of Technology, Eindhoven, The Netherlands*

10:15-10:30 **WE.G.1_O3 - Deterministic magnetization switching driven by spin hall effect in ultrathin magnetic CoFeB/MgO heterostructures with tilted anisotropy.**

J. Torrejon [1,2], F. Garcia-Sanchez [3], T. Taniguchi [4], J. Sinha [2], S. Mitani [2], J.V. Kim [3], M. Hayashi [2]
*1. Unité Mixte de Physique CNRS/Thales, Palaiseau, France*
*2. National Institute for Materials Science, Tsukuba, Japan*
*3. Institut d'Electronique Fondamentale, UMR CNRS 8622, Université Paris-Sud, Orsay, France*
*4. National Institute of Advanced Industrial Science and Technology (AIST), Spintronics Research Center, Tsukuba, Ibaraki, Japan*

10:30-10:45 **WE.G.1_O4 - Signatures of a Two-Dimensional Ferromagnetic Electron Gas at the La0.7Sr0.3 MnO3 / SrTiO3 Interface Arising From Orbital Reconstruction**

M.J. Calderon [1,2], N.M. Nemes [2,3], J.I. Beltran [1,3], F.Y. Bruno [2,3], J. Garcia-Barriocanal [2,3], Z. Sefrioui [2,3], C. Leon [2,3], M. Garcia-Hernandez [1,2], M. C. Muñoz [1], L. Brey [1,2]
*1. Instituto de Ciencia de Materiales de Madrid, ICMM-CSIC, Madrid, Spain*
*2. Laboratorio de Heteroestructuras con aplicación en Spintronica, Unidad Asociada Consejo Superior de Investigaciones Científicas/Universidad Complutense Madrid, Madrid, Spain*
*3. Departamento de Física Aplicada III, Universidad Complutense de Madrid, Madrid, Spain*

10:45-11:00 **WE.G.1_O5 - Spin-orbitronics: Investigation of the spin-to-charge current conversion by a topological insulator**

J.C. Rojas-Sánchez [1,2], S. Oyarzun [3], A. Marty [3], C. Vergnaux [3], G. Desfond [3], S. Gambarelli [3], M. Jamet [3], Y. Ohtsubo [4], P. Le Fèvre [5] N, Francois Bertran [5] N
*1. Unité Mixte De Physique CNRS/Thales, Palaiseau, France*
*2. Université Paris Sud, Orsay, France*
*3. CEA-Grenoble and Université Joseph Fourier, INAC, Grenoble, France*
*4. Graduate School of Frontier Biosciences, Osaka University, Osaka, Japan*
*5. Synchrotron SOLEIL, Gif sur Yvette, France*

## WE.H.1_VORTEX AND SKYRMION DYNAMICS

**09:30-11:00 (ROOM D1-D3)**

**Chair:** Oksana Chubykalo-Fesenko

09:30-10:00 **WE.H.1_I1 - Manipulation of magnetic skyrmions with spin-polarized STM**

K. von Bergmann [1]
*1. University of Hamburg, Hamburg, Germany*

10:00-10:15 **WE.H.1_O2 - Chaotic Dynamics Triggering Stochastic Vortex Formation in Asymmetric Magnetic Disks**

M.Y. Im [1,2], K.S. Lee [3], A. Vogel [4], J.I. Hong [2], G. Meier [4,5], P. Fischer [1,6]
*1. Lawrence Berkeley National Lab, Berkeley, United States*
*2. Daegu Gyeongbuk Institute of Science and Technology, Daegu, Republic of Korea*
*3. Ulsan National Institute of Science and Technology, Ulsam, Republic of Korea*
*4. Universität Hamburg, Hamburg, Germany*
*5. The Hamburg Centre for Ultrafast Imaging, Hamburg, Germany*
*6. University of California, Santa Cruz, United States*

10:15-10:30 **WE.H.1_O3 - Spin dynamics at the helimagnetic phase transition of MnSi**

A. Bauer [1], J. Kindervater [1], I. Stasinopoulus [2], F. Rucker [1], M. Garst [3], M. Janoschek [4], N. Martin[1,5], S. Mühlbauer [5], W. Häußler[1,5], D. Grundler [2]
*1. Physik Department E21/E51, Technische Universität München, Garching, Germany*
*2. Physik Department E10, Technische Universität München, Garching, Germany*
*3. Institut für theoretische Physik, Universität zu Köln, Garching, Germany*
*4. Los Alamos National Laboratory, Los Alamos, United States*
*5. Heinz Maier-Leibnitz Zentrum (MLZ), Technische Universität München, Garching, Germany*

10:30-10:45 **WE.H.1_O4 - Influence of thermal fluctuations on magnetic vortex depinning**

M. Kuepferling [1], E. Ferraro [1], A. Sola [1], C. Serpico [2], H. W. Schumacher [3], N. Liebing [3], P. Krzysteczko [3], A. Fernandez Scarioni [3], X. Hu [3], S. Sievers [3]
*1. Inrim, Torino, Italy*
*2. University Federico II, Napoli, Italy*
*3. PTB, Braunschweig, Germany*
*4. University of Bielefeld, Bielefeld, Germany*

10:45-11:00 **WE.H.1_O5 - Observation of magnetic skyrmions at room temperature in ultrathin Pt/Co/MgO perpendicularly magnetized multilayers by XMCD-PEEM**

O. Boulle [1], S. Pizzini [2], J. Vogel [2], L. Buda-Prejbeanu [1], O. Mentes [3], A. Locatelli [3], A. Sala [3], G. Gaudin [1]
*1. Spintec, Grenoble, France*
*2. Institut Néel, France*
*3. Elettra Sinchrotrone, Nanospectroscopy beamline, Trieste, Italy*

## WE.I.1_DOMAIN WALL MOTION

**09:30-11:00 (ROOM D4-D6)**

**Chair:** Gianfranco Durin

09:30-10:00 **WE.I.1_I1 - Interface-driven chiral spin textures in ultrathin magnetic films**

G. Beach [1]
*1. Department of Materials Science and Engineering, Massachusetts Institute Of Technology, Cambridge, United States*

10:00-10:15 **WE.I.1_O2 - Chiral effects in domain wall velocity and nucleation in Pt/Co/MOx films: the influence of the Dzyaloshinskii-Moriya interaction**

S. Pizzini [1], J. Vogel [1], S. Rohart [2], L. Buda-Prejbeanu [3], M. Miron [3], G. Gaudin [3], O Boulle [3], E. Jué[3], A. Thiaville [2]
*1. CNRS, Institut Néel, Grenoble, France*
*2. Laboratoire de Physique des Solides, Univ. Paris-Sud, CNRS, Orsay, France*
*3. SPINTEC, CEA/CNRS/UJF/Grenoble-INP, INAC, Grenoble, France*

10:15-10:30 **WE.I.1_O3 - Electrical switching of the perpendicular magnetization in Pt/[Co/Ni]3/Al multilayers**

J.C. Rojas-Sánchez [1,2], J. Sampaio [3], P. Laczkowski [1,2], N. Reyren [1,2], C. Deranlot [1,2], S. Collin [1,2], K. Bouzehouane [1,2], V. Cros [1,2] N, H. Jaffrès [1,2], A. Mougin [3]
*1. Unité Mixte De Physique CNRS/Thales, Palaiseau, France*
*2. Université Paris Sud, Orsay, France*
*3. Laboratoire de Physique des Solides, Université Paris Sud, Orsay, France*
*Unité Mixte De Physique CNRS/Thales, Palaiseau, France*

10:30-10:45 **WE.I.1_O4 - Influence of Joule heating on current-driven domain wall depinning**

S. Moretti [1], V. Raposo [1], E. Martinez [1]
*1. University of Salamanca, Salamanca, Spain*

10:45-11:00 **WE.I.1_O5 - Perpendicularly magnetized spintronic memristor**

S. Lequeux [1], J. Sampaio [1], R. Matsumoto [2], A. Fukushima [2], K. Yakushiji [2], S. Yuasa [2], V. Cros [1], J. Grollier [1]
*1. Unité Mixte De Physique CNRS/Thales, Palaiseau, France*
*2. AIST, Tsukuba, Japan*

## WE.J.1_MAGNETIC INFORMATION STORAGE, MEMORIES AND COMPUTATION

**09:30-11:00 (ROOM E1-E3)**

**Chair:** Chih-Huang Lai

09:30-10:00 **WE.J.1_I1 - Novel applications of perpendicular magnetic anisotropy: 3-dimensional MRAM and cancer therapy**

R. Cowburn [1]
*1. University Of Cambridge, Cambridge, United Kingdom*

10:00-10:15 **WE.J.1_O2 - In operando magnetic writing head quantitatively mapped using electron holography**

A. Masseboeuf [1], J. Einsle [2], R. Bowman [2], M. Bashir [3], M. Gubbins [3], C. Gatel [1], R. Cours [1], E. Snoeck [1]
*1. CNRS-CEMES & Université Paul Sabatier, Toulouse, France*
*2. Queens University, Belfast, United Kingdom*
*3. Seagate Technology, Londonderry, United Kingdom*

10:15-10:30 **WE.J.1_O3 - A development of advanced barium ferrite tape media**

O. Shimizu [1], M. Oyanagi [1], Y. Kurihashi [1], A. Morooka [1], T. Harasawa [1]
*1. FUJIFILM Corporation, Tokyo, Japan*

10:30-10:45 **WE.J.1_O4 - Circuit architecture for NAND logic operation via STT-MTJ**

D. Loy [1], S. Goolaup [2], W. Siang Lew [3]
*1. Nanyang Technological University, Singapore*

10:45-11:00 **WE.J.1_O5 - Ferromagnetic tetragonal Heusler thin films for spintronic applications**

J. Jeong [1], Y. Ferrante [1,2,3], S. Faleev [1], M. Samant [1], C. Felser [4], S. Parkin[5]
*1. IBM Almaden Research, San Jose, United States*
*2. The Graduate School of Excellence 'Materials science in Mainz', Mainz, Germany*
*3. University of Kaiserslautern, Physics dept., Kaiserslautern, Germany*
*4. Max Planck Institute for Chemical Physics of Solids, Dresden, Germany*
*5. Max Planck Institute of Microstructure Physics, Halle (Saale), Germany*

## WE.A.2_SUPERCONDUCTIVITY AND MAGNETISM, INCLUDING EXOTIC SUPERCONDUCTIVITY

**12:30-13:30 (ROOM J)**

**Chair:** Stefan Kirchner

12:30-12:45 **WE.A.2_O1 - Proximity effects is YBa2Cu3O7/[Co/Pt]n heterostructures**
C. Visani
*1. Unité Mixte De Physique CNRS/Thales, Palaiseau, France*

12:45-13:00 **WE.A.2_O2 - Magnetic nanoparticles in MgB2: vortex pinning, pair breaking and connectivity**
E. Babic [1], N. Novosel[1], D. Pajić[1] , S. Galić[1], K. Zadro[1], D. Drobac[2]
*1. University Of Zagreb, Faculty Of Science, Department Of Physics, Zagreb, Croatia*
*2. Institute of Physics, Zagreb, Croatia*

13:00-13:15 **WE.A.2_O3 -Spin orbital interplay and topology in the nematic phase of iron pnictides**
B. Valenzuela
*1. Instituto De Ciencia De Materiales De Madrid CSIC, Madrid, Spain*

13:15-13:30 **WE.A.2_O4 -Colossal superconducting spin valve effect and ultra-small exchange-splitting in epitaxial rare-earth-niobium trilayers**
Y. Gu
*1. University of Cambridge, CAMBRIDGE, UNITED KINGDOM*

## WE.B.2_ARRAYS OF MAGNETIC NANOSTRUCTURES

**11:30-13:30 (ROOM F)**

**Chair:** Luis M. García de Vinuesa

11:30-12:00 **WE.B.2_I1 - Design of interfaces for tuning magnetism in nanostructures**
M. Farle [1], S. Liébana Viñas [1], R. Salikhov [1], C. Bran [2], E. Palmero [2], B. Arvan [2], P. Toson [1], J. Fidler[3], M. Spasova [1], U. Wiedwald [1]
*1. Fakultät für Physik and Center for Nanointegration (CENIDE), Universität Duisburg-Essen, Duisburg, Germany*
*2. Institute of Materials Science of Madrid, CSIC, Madrid, Spain*
*3. Institute of Solid State Physics, Vienna University of Technology, Vienna, Austria*
*4. Departamento de Física Aplicada, Universidade de Vigo, Vigo, Spain*

12:00-12:15 **WE.B.2_O2 - Building Blocks of Artificial Square Spin Ice: Stray-Field Studies of Thermal Dynamics and Tuned Interactions.**

M. Pohlit [1], F. Porrati [1], M. Huth [1], Y. Ohno [2], H. Ohno [2], J. Müller [1]
*1. Institute of Physics, Goethe-University Frankfurt, Frankfurt am Main, Germany*
*2. Laboratory for Nanoelectronics and Spintronics, Research Institute of Electrical Communication, Tohoku University, Sendai, Japan*

12:15-12:30 **WE.B.2_O3 - Tuning the melting temperature of artificial spin ice structures**

S. Pappas [1], E. Östman [1], H. Stopfel [1], B. Hjörvarsson [1], V. Kapaklis [1]
*1. Uppsala University, Department of Physics and Astronomy, Uppsala, Sweden*

12:30-12:45 **WE.B.2_O4 - Magnetic imaging of honeycomb artificial spin ice at low temperatures**

K. Zeissler [1], M. Chadha [1], D. Burn [1], L. Cohen [1], W. Branford [1]
*1. Imperial College London, London, United Kingdom*

12:45-13:00 **WE.B.2_O5 - XMCD-PEEM Characterisation of Self Assembled Artificial Magnetic Material based on Concavity Nanostructures**

J. Llandro [1], D. Love [1], D. Mahendru [1], C. Cimorra [1], F. Maccherozzi [2], S. Dhesi [2], J. Herrero Albillos [3], C. Barnes [1]
*1. University Of Cambridge, United Kingdom*
*2. Diamond Light Source, United Kingdom*
*3. Centro Universitario de la Defensa, Spain*

13:00-13:30 **WE.B.2_I6 - Vortices and antivortices on the move: a powerful tool to probe magnetic states in nanomagnets.**

J. Vicent [1,2], J. del Valle [1], A. Gomez [1], E. Gonzalez [1,2]
*1. Universidad Complutense, Madrid, Spain*
*2. IMDEA-Nanociencia, Madrid, Spain*

## WE.C.2_ACTINIDES AND LANTHANIDES

**11:30-13:30 (ROOM H1)**

**Chair:** Jose I. Arnaudas

11:30-12:00 **WE.C.2_I1 - Electronic and Magnetic Structure of Actinide Metals**

G. Van Der Laan [1]. *Magnetic Spectroscopy Group, Diamond Light Source, Didcot, United Kingdom.*

12:00-12:15 **WE.C.2_O2 - UH3 based ferromagnets -new look at old material**

L. Havela [1], I. Tkach [1], M. Paukov [1], D. Drozdenko [1], M. Cieslar [1], B. Vondrackova [1], Z. Matej [1], A. V. Andreev [2], N.-T.H. Kim-Ngan [3],I. Turek [1]
*1. Charles University, Faculty Of Mathematics and Physics, Prague, Czech Republic*
*2. Institute of Physics, Academy of Sciences of the Czech Republic, Prague, Czech Republic*
*3. Institute of Physics, Pedagogical University Cracow, Poland*

12:15-12:30 **WE.C.2_O3 - Physical properties of an UFe1-xSb2 single crystal**

A. P. Gonçalves [1], M. S. Henriques [1,2], J. C. Waerenborgh [1], I. Èurlik [3], S. Koviþ [3], M. Reiffers [3], J. Rusz [4]
*1. C2TN, Campus Tecnológico e Nuclear, Instituto Superior Técnico, Universidade de Lisboa, Bobadela LRS, Portugal*
*2. Institute of Physics, ASCR, Prague, Czech Republic*
*3. Faculty of Humanities and Natural Sciences, University of Prešov, Prešov, Slovakia*
*4. Department of Physics and Astronomy, Uppsala University, Uppsala, Sweden*

12:30-12:45 **WE.C.2_O4 - Phasons, amplitude modes, and spin wave excitations in the amplitude-modulated magnetic structure of PrNi2Si2**

J. Blanco [1], B. Fak [2], J. Jensen [3], M. Rotter [4], A. Hiess [5], D. Schmitt [6], P.l Lejay [7]
*1. University Of Oviedo, Oviedo, Spain*
*2. 2SPSMS, UMR-E CEA/UJF-Grenoble-I, INAC, Grenoble, France*
*3. Niels Bohr Institute, Copenhagen, Denmark*
*4. Max-Plack Institute for Chemical of Solids, Dresden, Germany*
*5. European Spallation Source ESS AB, Lund, Sweden*
*6. ISTerre, CENR, Université de Grenoble I, Grenoble, France*
*7. Institut Néel, Grenoble, France*

12:45-13:00 **WE.C.2_O5 - Copexistence of trivalent and intermediate-valence Ce in CeRuSn studied by polarized neutrons**

K. Prokes [1], S. Hartwig [1], A. Gukasov [2], J. Mydosh [3], Y. Huang [4], O. Niehaus [5], R. Poettgen [5]
*1. Helmholtz-Zentrum Berlin, Berlin, Germany*
*2. LLB Saclay, Yvette, France*
*3. Kamerlingh Onnes Laboratory, Leiden University, Leiden, The Netherlands*
*4. University of Amsterdam, Amsterdam, The Netherlands*
*5. Westfälische-Wilhelms University Muenster, Muenster, Germany*

13:00-13:30 **WE.C.2_I6 - Coupling lanthanide-based molecular qubits to quantum circuits**

F. Luis [1]
*1. Instituto De Ciencia De Materiales De Aragón, CSIC-University Of Zaragoza, Zaragoza, Spain*

## WE.D.2_MAGNETIC INFORMATION STORAGE, MEMORIES AND COMPUTATION

**11:30-13:30 (ROOM H2)**

**Chair:** Eric Fullerton

11:30-12:00 **WE.D.2_I1 - Controlling L10 ordering and microstructures of FePt films**

C. Lai [1], S. Huang [1], W. Wen [1], J. Liao [1], B. Yang [1], K. Chang [2]
*1. National Tsing Hua University, Taiwan*
*2. Seagate Technology, United States*

12:00-12:15 **WE.D.2_O2 - Reduction in switching field of perpendicularly magnetized L10-FePt nanodots exchange-coupled with soft magnetic Ni81Fe19 under RF field application**

W. Zhou [1], T. Seki [1], H. Imamura [2], H. Arai [2], K. Takanashi [1]
*1. Institute For Materials Research, Tohoku University, Japan*
*2. National Institute of Advanced Industrial Science and Technology, Japan*

12:15-12:30 **WE.D.2_O3 - Free layer effective anisotropy thickness in high TMR top and bottom pinned perpendicular magnetic tunnel junctions**

J. Swerts [1], S.Mertens [1], T.Lin [1], S. Couet [1], Y. Tomczak [1], E. Liu [1], W. Kim [1], G. Sankar Kar [1], S. Van Elshocht [1], A. Furnemont [1]
*1. Imec, Leuven, Belgium*

12:30-12:45 **WE.D.2_O4 - Layer-selective switching of a double-layer perpendicular magnetic nanodot using microwave-assisted switching technique**

H. Suto [1], T. Nagasawa [1], K. Kudo [1], T. Kanao [1], K. Mizushima [1], R. Sato [1]
*1. Corporate Research & Development Center, Toshiba Corporation, Kawasaki, Japan*

12:45-13:00 **WE.D.2_O5 - Multi-bits memory cell using degenerated magnetic states in a synthetic antiferromagnetic reference layer**

A. Fukushima [1], K. Yakushiji [1], M. Konoto [1], H. Kubota [1], H. Imamura [1], S. Yuasa [1]
*1. National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan*

13:00-13:30 **WE.D.2_I6 - Heat-Assisted Magnetic Recording -Turning Plasmonics and FePt Media into a Product**

B. Stipe [1], T. Matsumoto [1], S. Burgos [1], G. Parker [1], M. Grobis [1], B. Terris [1]
*1. HGST, A Western Digital Company, San Jose, United States*

## WE.E.2_THEORY AND NEW DEVELOPMENTS OF STRONGLY CORRELATED MATTER

**11:30-13:30 (ROOM H3)**

**Chair:** Silke Paschen

11:30-12:00 **WE.E2_I1 - Towards computational design of correlated materials**

R. Valenti [1]
*1. Goethe University Frankfurt, Frankfurt, Germany*

12:00-12:15 **WE.E2_O2 - Impact of electronic correlations on the equation of state and transport in the epsilon phase of iron**

L. Poyurovskiy [1], J. Mravlje [2], M. Ferrero [1], O. Parcollet [3], I. Abrikosov [4]
*1. CPHT-Ecole Polytechnique, Palaiseau, France*
*2. Josef Stefan Institute, Ljubljana, Slovenia*
*3. IPhT, CEA, Gif-sur-Yvette, France*
*4. IFM, University of Linköping, Linköping, Sweden*

12:15-12:30 **WE.E2_O3 - A new tool for analysing systems immersed in a magnetic field: the metric space approach to quantum mechanics**

P. Sharp [1], I. D'Amico [1]
*1. University Of York, Heslington, United Kingdom*

12:30-12:45 **WE.E2_O4 - Nonequilibrium Transport at a Dissipative Quantum Phase Transition**

C. H. Chung [1,2], K. Le Hur [3,4], G. Finkelstein [5], M. Vojta [6], P. Woelfle [7,8]
*1. Department of Electrophysics, National Chiao-Tung University, HsinChu, Taiwan*
*2. Physics Division, National Center for Theoretical Sciences, HsinChu, Taiwan,*
*3. Center for Theoretical Physics Ecole Polytechnique and CNRS,Palaiseau, France*
*4. Department of Physics and Applied Physics, Yale University, New Haven, United States*
*5. Department of Physics, Duke University, Durham, United States*
*6. Institut fuer Theoretische Physik, Technische Universitaet Dresden, Dresden, Germany*
*7. Institut fuer Theorie der Kondensierten Materie, KIT, Karlsruhe, Germany*
*8. Institut fuer Nanotechnologie, KIT, Karlsruhe, Germany*

12:45-13:00 **WE.E2_O5 - Unconventional superconductivity in the Hubbard and t-J models: Gutzwiller wave function solution**

J. Kaczmarczyk [1,2], T. Schickling [3], J. Bünemann [3], J. Spałek [2]
*1. Institute Of Science And Technology Austria, Klosterneuburg, Austria*
*2. Marian Smoluchowski Institute of Physics, Jagiellonian University, Krakow, Poland*
*3. Fachbereich Physik, Philipps Universität Marburg, Marburg, Germany*

13:00-13:15 **WE.E2_O6 - Correlation-induced $d$-wave s uperconductivity within the Anderson-Kondo lattice model: A fully microscopic approach**

J. Spałek [1,2], O. Howczak [1]
*1. Marian Smoluchowski Institute of Physics, Jagiellonian University, Krakow, Poland*
*2. Academic Centre for Materials and Nanotechnology, AGH University of Science and Technology, Krakow, Poland*

13:15-13:30

**WE.E2_O7 - Local-moment Magnetism and Heavy-Fermion Superconductivity**

Q. Si [1]
*1. Rice University, Houston, United States*

## WE.F.2_HEAVY FERMIONS PHYSICS INCLUDING VALENCE AND CHARGE FLUCTUATIONS

**11:30-13:30 (ROOM A)**

**Chair:** Jose Ignacio Espeso

11:30-12:00

**WE.F.2_I1 - Superconductivity in the layered iron-germanide YFe2Ge2**

M. Grosche [1], K. Semeniuk [1], P. Reiss [1], J. Chen [1], Z. Feng [2], P. Logg [1], Y. Zou [1], G. Lampronti [3]
*1. Cavendish Laboratory, University Of Cambridge, Cambridge, United Kingdom*
*2. London Centre of Nanotechnology, University College London, London, United Kingdom*
*3. Department of Earth Sciences, University of Cambridge, Cambrige, United Kingdom*

12:00-12:15

**WE.F2_O2 - Magnetic-field-induced Lifshitz transitions in heavy fermion materials**

G. Zwicknagl [1]
*1. Institut F. Mathematische Physik, TU Braunschweig, Braunschweig, Germany*

12:15-12:30

**WE.F2_O3 - Fermi surface and upper critical field study of the ferromagnetic superconductor UCoGe under hydrostatic pressure**

G. Bastien [1,2], G. Knebel [1,2], D. Aoki [1,2,3], S. Araki [4], I. Sheikin [5], J. Flouquet [1,2]
*1. Univ. Grenoble Alpes, INAC-SPSMS, Grenoble, France*
*2. INAC/SPSMS, CEA-Grenoble, Grenoble, France*
*3. IMR-Tohoku University, Oarai, Japan*
*4. Okayama University, departement of physics, Okayama, Japan*
*5. Laboratoire Nationale des Champs Magnétiques Intenses, Grenoble, France*

12:30-12:45

**WE.F2_O4 - NMR measurements on CeCoIn5 /YbCoIn5 superlattices: The interface state between heavy-fermion compound and normal metal**

T. Yamanaka [1], M. Shimozawa [2], R. Endo [1], Y. Mizukami [3], H. Shishido [4], T. Terashima [5], T. Shibauchi [1,3], Y. Matsuda [1], K. Ishida [1]
*1. Department Of Physics, Kyoto University, Kyoto, Japan*
*2. Institute for Solid State Physics, the University of Tokyo, Tokyo, Japan*
*3. Department of Advanced Materials Science, the University of Tokyo, Tokyo, Japan*
*4. Department of Physics and Electronics, Osaka Prefecture University, Osaka Prefecture, Japan*
*5. Research Center for Low Temperature and Materials Science, Kyoto University, Kyoto, Japan*

12:45-13:00 **WE.F2_O5 - RIXS investigations of charge excitations in Kondo-switching YbInCu4**

I. Jarrige [1], H. Yamaoka [2], N. Tsujii [3], K. Ishii [4], M. Upton [5], D. Casa [5], J. Kim [5], T. Gog [5], A. Kotani [6], J. Hancock [7]
*1. Photon Sciences Directorate, Brookhaven National Laboratory, Upton, United States*
*2. RIKEN SPring-8 Center, Sayo, Hyogo, Japan*
*3. Quantum Beam Center, National Institute for Materials Science, Sengen, Tsukuba, Japan*
*4. Japan Atomic Energy Agency, Sayo, Hyogo, Japan*
*5. Advanced Photon Source, Argonne National Laboratory, Argonne, United States*
*6. Photon Factory, Institute of Materials Structure Science, High Energy Accelerator Research Organization, Tsukuba, Ibaraki, Japan*
*7. Department of Physics and Institute for Materials Science, University of Connecticut, Storrs, United States*

13:00-13:15 **WE.F2_O6 - Classical and quantum criticalities in the itinerant ferromagnet UGe$_2$: A microscopic interpretation**

M. Wysokinski [1], M. Abram [1], J. Spałek [1,2]
*1. Marian Smoluchowski Institute of Physics, Jagiellonian University, Krakow, Poland*
*2. Academic Centre For Materials and Nanotechnology, AGH University of Science and Technology, Krakow, Poland*

13:15-13:30 **WE.F2_O7 - Symmetry of the Excitations in the Hidden Order State of URu2Si2**

Marie-Aude Measson
M.A. Measson [1], J. Buhot [2], Y Gallais [2], A. Sacuto [2], M. Cazayous [2], D. Aoki [3,4], G. Lapertot [3]
*1. University Paris Diderot – CNRS, Paris, France*
*2. University Paris Diderot, Paris, France*
*3. Univ. Grenoble Alpes, Grenoble, France*
*4. Tohoku University, Japan*

## WE.G.2_ELECTRIC-FIELD EFFECTS ON MAGNETIC SYSTEMS

**11:30-13:30 (ROOM B1-B3)**

**Chair:** Chiara Ciccarelli

11:30-12:00 **WE.G2_I1 - Bulk magnon spin-current theory for the longitudinal spin-Seebeck effect**

S. Rezende [1], R. Suárez [2], A. Azevedo[1]
*1. Universidade Federal De Pernambuco, Recife, Brazil*
*2. Pontificia Universidad Católica de Chile, Santiago, Chile*

12:00-12:15 **WE.G2_O2 - Electric-Field-Induced Magnetic Anisotropy in a Nanomagnet Investigated on the Atomic Scale**

J. P. Hermenau [1], A. Sonntag [1], A. Schlenhoff [1], J. Friedlein [1], S. Krause [1], R. Wiesendanger

*1. University Of Hamburg, Hamburg, Germany*

12:15-12:30 **WE.G2_O3 - Enhancement of rectified voltage using electric-field-induced ferromagnetic resonance under dc bias voltage**

Y. Shiota [1,2,3], S. Miwa [2,3], S. Tamaru [1], T. Nozaki [1,3], H. Kubota [1,3], A. Fukushima [1,3], Y. Suzuki [1,2,3], S. Yuasa [1,3]

*1. AIST, Spintronics Research Center,* Tsukuba, Ibaraki, Japan
*2. Osaka University, Suita, Osaka, Japan*
*3. JST-CREST, Chiyoda-ku, Tokyo, Japan*

12:30-12:45 **WE.G2_O4 - Charge and Strain Control of Interface Magnetism**

K. Dumesnil [1], M.R. Fitsimmons [2], N. Jaouen [3], T. Maroutian [4], J.M. Tonnerre [5], B. Kirby [6], B. Holladay [7], E. Fohtung [2,8], E. Fullerton [7], O. Shpyrko [7]

*1. Institut Jean Lamour, Université de Lorraine and CNRS, Nancy, France*
*2. Los Alamos National Laboratory, Los Alamos, United States*
*3. Synchrotron SOLEIL, Gif-sur-Yvette, France*
*4. Institut d'Electronique Fondamentale, Université Paris-Sud and CNRS, Orsay, France*
*5. Institut Néel, Université Grenoble Alpes and CNRS, Grenoble, France*
*6. NIST, Gaithersburg, United States*
*7. University of California at San Diego, La Jolla, United States*
*8. New Mexico State University, Las Cruces, United States*

12:45-13:00 **WE.G2_O5 - Reversible electric control of magnetic anisotropy in CoFeB/BaTiO3 heterostructures with perpendicular magnetic anisotropy**

L. Baldrati [1], C. Rinaldi [1,2], M. Asa [1], M. Cantoni [1], S. Bertoli [1], R. Bertacco [1,2]

*1. Department of Physics, Politecnico Di Milano, Milan, Italy*
*2. IFN-CNR Institute for Photonics and Nanotechnologies, Milan, Italy*

13:00-13:30 **WE.G2_I6 - Electric field effects on metallic ferromagnetic thin layers and its applications**

Y Suzuki [1], S. Miwa [1], K. Tanaka [1], K. Matsuda [1] N, F. Bonell [1], Ti Nozaki [2], Y. Shiota [2], W. Skowronski [2], K. Yakushiji [2], A. Fukushima [2]

*1. Osaka University,Graduate School Of Engineering Science, Suita, Osaka Prefecture, Japan*
*2. Spintronics research center, AIST, Tsukuba, Japan*
*3. Spring-8, Sayo District, Hyogo Prefecture, Japan*

## WE.H.2_KONDO PHYSICS IN BULK MATERIALS AND NANOSCALE STRUCTURES

**11:30-13:30 (ROOM D1-D3)**

**Chair:** John Mydosh

11:30-12:00

**WE.H.2_I1 - Metamagnetism in heavy fermion systems**

G. Knebel [1,2], A. Pourret [1,2], D. Aoki [1,2,3], T. Combier [1,2], A. Palacio Morales [1,2], G. Lapertot [1,2], T. D. Matsuda [4], J. Flouquet [1,2]
*1. Univ. Grenoble Alpes, INAC-SPSMS, Grenoble, France*
*2. CEA, INAC-SPSMS, Grenoble, France*
*3. Institute for Materials Research, Tohoku University, Oarai, Ibaraki, Japan*
*4. Tokyo Metropolitan University, Hachioji, Japan*

12:00-12:15

**WE.H.2_O2 - Controlling the coupling among many-body Kondo states in atomically designed Co atomic structures.**

M. Moro-Lagares [1,2], M. Piantek [1,2], M.R. Ibarra [1,2], J. I. Pascual [3], D. Serrate [1,2]
*1. INA-LMA, University of Zaragoza, Zaragoza, Spain*
*2. Condensed Matter Physics Dpt., University of Zaragoza, Zaragoza, Spain*
*3. CIC-Nanogune and IKERBASQUE, San Sebastian, Spain*

12:15-12:30

**WE.H.2_O3 - Ferromagnetic Kondo lattice behaviour of CeZn(Zn0.29Si0.71)2**

H. Michor [1], F. Failamani [2], A. Grytsiv [2], G. Giester [3], E. Bauer [1], P. Rogl [2]
*1. Institute of Solid State Physics, Vienna University Of Technology, Vienna, Austria*
*2. Institute of Physical Chemistry, University of Vienna, Vienna, Austria*
*3. Institute of Mineralogy and Crystallography, University of Vienna, Vienna, Austria*

12:30-12:45

**WE.H.2_O4 - Multiple magnetic-field-induced transitions in the Kondo lattice YbNi4P2**

A. Steppke [1], H. Pfau [1], R. Daou [2], D. Sun [1], K. Kliemt [3], C. Krellner [3], C. Geibel [1], F. Steglich [1], M. Brando [1], S. Friedemann [4]
*1. Max-Planck Institute for Chemical Physics of Solids, Dresden, Germany*
*2. Laboratoire CRISMAT, UMR 6508 du CNRS, ENSICAEN et Université de Caen, Caen, France*
*3. Institute of Physics, Goethe University Frankfurt, Frankfurt am Main, Germany*
*4. HH Wills Physics Laboratory, University of Bristol, Tyndall Avenue, United Kingdom*

12:45-13:00

**WE.H.2_O5 - Investigations of the stability of spin gap formation and the moment direction by electron doping on the Al site in CeRu2Al10**

D.T. Adroja [1,2], A. Bhattacharyya [1,2], C. Ritter [3], B. Fak [3], A.D. Hillier [1], K. Hayashi [4], Y. Muro [4], A.M. Strydom [2], M.M. Koza [3], T. Takabatake [5]
*1. ISIS Facility, Rutherford Appleton Laboratory, Chilton, Didcot Oxon, United Kingdom*
*2. Highly Correlated Matter Research Group, Physics Department, University of Johannesburg, Auckland Park, South Africa*
*3. Institute Laue- Langevin, Grenoble, France*
*4. Faculty of Engineering, Toyama Prefectural University, Toyama, Japan*
*5. Department of Quantum matter, ADSM, and IAMR, Hiroshima University, Higashi-Hiroshima, Japan*

13:00-13:30

**WE.H.2_I6 - The importance of orbital occupation in heavy fermion compounds investigated by means of x-ray spectroscopy**

A. Severing [1], F. Strigari [1], M. Sundermann [1], W. Thomas [1], H. Maurits W. [2], L. Hao Tjeng [2]
*1. University of Cologne, Cologne, Germany*
*2. Max-Planck Institute for Chemical Physics of Solids, Dresden, Germany*

## WE.I.2_SPIN CALORITRONICS

**11:30-13:30 (ROOM D4-D6)**

**Chair:** Mark Stiles

11:30-12:00

**WE.I.2_I1 - Spin-Caloritronics in Magnetic Tunnel Junction Nanodevices**

S. Serrano-Guisan [1], N. Liebing [2], T. Böhnert [1], K. Rott [3], E. Paz [1], R Ferreira [1], G. Reiss [3], H.W. Schumacher [2]
*1. International Iberian Nanotechnology Laboratory, Braga, Portugal*
*2. Physikalisch-Technischen Bundesanstalt, Braunschweig, Germany*
*3. Universität Bielefeld, Bielefeld, Germany*

12:00-12:30

**WE.I.2_I2 - Spin pumping and magnon-drag effect**

M. Costache [1], G. Bridoux [1], I. Neumann [1], S. Valenzuela [1]
*1. Catalan Institute Of Nanoscience And Nanotechnology (ICN2), Bellaterra, Spain*

12:30-12:45

**WE.I.2_O3 - Observation of magnon hall effect and planar righi-leduc effect in py and yig ferromagnets**

J.E. Wegrowe [1], B. Madon [1], D. Chung Pham [1], D. Lacour [2], M. Hehn [2], A. Anane [3], V. Cros [3], R. Bernard [3]
*1. Ecole Polytechnique, LSI, CNRS and CEA/DSM/IRAMIS, Palaiseau, France*
*2. Institut Jean Lamour UMR 7198 CNRS, University de Lorraine, Nancy, France*
*3. Unité Mixte de Physique CNRS/Thales and Université Paris Sud, Palaiseau, France*

12:45-13:00 **WE.I.2_O4 - Giant spin pumping into a fluctuating ferromagnet near Tc**

H. Adachi [1], Y. Ohnuma [2], E. Saitoh [3], S. Maekawa [1]
*1. Advanced Science Research Center, Japan Atomic Energy Agency,* Ibaraki Prefecture, Japan
*2. Institute for Materials Research, Tohoku Univeristy, Miyagi Prefecture, Japan*
*3. WPI, Advanced Institute for Materials Research, Tohoku Univeristy, Miyagi Prefecture, Japan*

13:00-13:15 **WE.I.2_O5 - Tunnel magneto-Seebeck effect in Heusler compound tunnel junctions**

A. Boehnke [1], U. Martens [2], M. von der Ehe [2], C. Franz [3], M. Czerner [3], K. Rott [1], A. Thomas [1], C. Heiliger [3], G. Reiss [1], M. Münzenberg [2]
*1. Center for Spinelectronic Materials and Devices, Physics Department, Bielefeld University, Bielefeld, Germany*
*2. Institut Für Physik, Ernst-Moritz-Arndt-Universität Greifswald, Greifswald, Germany*
*3. I. Physikalisches Institut, Justus-Liebig-Universität Gießen, Gießen, Germany*

13:15-13:30 **WE.I.2_O6 - Heat production by diffusion of pure spin current**

T. Taniguchi [1], W. Saslow [2]
*1. National Institute Of Advanced Industrial Science And Technology, Kashiwa, Japan*
*2. Department of Physics, Texas A&M University, College Station, United States*

## WE.J.2_HYBRID NANOSTRUCTURES

**11:30-13:30 (ROOM E1-E3)**

**Chair:** Lucia del Bianco

11:30-12:00 **WE.J.2_I1 - Composition and Morphology of Fe-Si interfaces and (Fe/Si)3 multilayer nanostructures**

J. Bartolomé [1], L. Badía-Romano [1], J. Rubín [1], F. Bartolomé [1], C. Magén [2], D.E. Bürgler [3], J. Rubio-Zuazo [4], G.R. Castro [4], S.N. Varnakov [5], I.A. Yakovlev [5]
*1. Instituto De Ciencia De Materiales De Aragón, Zaragoza, Spain*
*2. Laboratorio de Microscopias Avanzadas (LMA) Instituto de Nanociencia de Aragón, Universidad de Zaragoza, Zaragoza, Spain*
*3. Peter Grünberg Institut (PGI-6), Forschungszentrum Jülich GmbH, Jülich, Germany*
*4. ApLine Spanish CRG at ESRF, Grenoble, France*
*5. L.V. Kirensky Institut of Physics, SB RAS, Ktasnoyarsk, Russian Federation*

12:00-12:15 **WE.J.2_O2 - Influence of the type of magnetic domain walls on magnetization reversal of bilayer permalloy-niobium nanostructures.**

L.S. Uspenskaya [1], S.V. Egorov [1]
*1. Institute Of Solid State Physics RAS, Chernogolovka, Russian Federation*

12:15-12:30 **WE.J.2_O3 - Comparative Study of Pair Correlations in Superconducting-Magnetic Hybrid Systems**

A. Bill [1], T. E. Baker [2], A. Richie-Halford [3]
*1. California State University Long Beach, Long Beach, United States*
*2. University of California, Irvine, United States*
*3. University of Washington, Seattle, United States*

12:30-12:45 **WE.J.2_O4 - Flexible magnetic actuator-cum-electrically conducting sheet based on FeNi3-bacterial cellulose nanocomposite**

T. Vijayabaskaran [1], S. Vitta [1]
*1. Indian Institute Of Technology Bombay, Bombay, India*

12:45-13:00 **WE.J.2_O5 - The ultimate hard magnetic MFM tip -a new approach to advanced magnetic force microscopy imaging**

V. Neu [1], T. Sturm [1], S. Vock [1], L. Schultz [1]
*1. IFW Dresden, Dresden, Germany*

13:00-13:30 **WE.J.2_I6 - Josephson superconductor/ferromagnet/ superconductor structures and their possible applications in superconducting digital and quantum logics.**

V. Ryazanov [1]
*1. Institute of Solid State Physics, Russian Academy Of Sciences, Chernogolovka, Russian Federation*

# THURSDAY, 9 JULY

## PLENARY-4

**08:30-09:30 (AUDITORIUM)**

**Chair:** Roberta Sessoli

08:30-09:30 **PLENARY 4 -Molecular Spintronics**

Eugenio Coronado
*ICMol. University of Valencia, Paterna, Spain*

## TH.A.1_MAGNETIC PHASE TRANSITIONS AND MAGNETIC INTERACTIONS

**09:30-11:00 (ROOM J)**

**Chair:** Isabelle Mirebeau

09:30-09:45 **TH.A.1_O1 - Spin-lattice coupling and magnetocrystalline transition in Pr0.50Sr0.50CoO3 investigated by x-ray absorption and neutron diffraction**

J. Padilla-Pantoja [1], J. Herrero-Martín [2], B. Bozzo [1], C. Ritter [3], J. Blasco [4], J.L. García-Muñoz [1]
*1. Institut de Ciència de Materials de Barcelona, Bellaterra, Spain*
*2. ALBA Synchrotron Light Source, Cerdanyola del Vallès, Barcelona, Spain*
*3. Institute Laue Langevin, Grenoble, France*
*4. Instituto de Ciencia de Materiales de Aragón, Dep. Física de la Materia Condensada, CSIC-Universidad de Zaragoza, Zaragoza, Spain*

09:45-10:00 **TH.A.1_O2 - Magnetic properties of the 3d-5d double perovskite Sr2FeOsO6: microscopic insights from ab-initio density-functional theory study**

S. Kanungo [1], B. Yan [1,2], M. Jansen [1,3], C. Felser [1]
*1. Max Planck Institute For Chemical Physics Of Solids, Dresden, Germany*
*2. Max-Planck-Institut fur Physik komplexer Systeme, Dresden, Germany*
*3. Max-Planck-Institut fur Festkorperforschung, Stuttgart, Germany*

10:00-10:15 **TH.A.1_O3 - Field-Induced Spin-Structural Transition in Ising Chain CoV2O6**

M. Nandi [1], N. Khan [1], D. Bhoi [1], A. Midya [1], P. Mandal [1]
*1. Saha Institute Of Nuclear Physics, Kolkata, India*

10:15-10:30 **TH.A.1_O4 - Magnetic phase transitions and magnetic interactions in quasi-two-dimensional complex oxides based on brucite-like octahedral layers**

A. Kurbakov [1], A. Kuncevich [1], A. Malyshev [1], V. Nalbandyan [2], E. Zvereva [3]
*1. Petersburg Nuclear Physics Institute, Gatchina, Russian Federation*
*2. Southern Federal University, Rostov-on-Don, Russian Federation*
*3. Moscow State University, Moscow, Russian Federation*

10:30-10:45 **TH.A.1_O5 - Local magnetic behavior across the first order phase transition of the La(Fe0.9Co0.015Si0.085)13 magneto caloric compound.**

C. Bennati [1,2], F. Laviano [1], M. Kuepferling [2], E. Olivetti [2], V. Basso [2], G. Ghigo [1]
*1. Department of Applied Science and Technology, Politecnico di Torino, Turin, Italy*
*2. Istituto Nazionale di Ricerca Metrologica (INRIM), Turin, Italy*

10:45-11:00 **TH.A.1_O6 - Magnetism of sigma-phase Fe-Mo alloys: revealing spin-glass as the ground state**

S. Dubiel [1], J. Przewoznik [1]
*1. AGH University Of Science And Technology, Krakow, Poland*

## TH.B.1_MATERIALS FOR ENERGY APPLICATIONS

**09:30-11:00 (ROOM F)**

**Chair:** Alberto Bollero

09:30-10:00 **TH.B.1_I1 - Magnetocaloric effect in type-I Eu8Ga16Ge30 clathrate nanocrystals**

H. Srikanth [1], A. Biswas [1,2], S. Chandra [1,3], S. Stefanoski [1,4], J. Blasquez [5], J. Ipus [5], A. Conde [5], M.H. Phan [1], V. Franco [5], G. Nolas [1]
*1. Department Of Physics, University Of South Florida, Tampa FL, United States*
*2. Ames Laboratory, Ames, United States*
*3. EMT-INRS, Quebec, Canada*
*4. Carnegie Institute, Washington DC, United States*
*5. Physics Department, University of Sevilla, Sevilla, Spain*

10:00-10:15 **TH.B.1_O2 - Thermoelectricity and thermodiffusion in ferrofluids: alternative path toward future thermoelectric energy materials**

S. Nakamae [1], B.T. Huang [1], T. Salez [1], M. Bonetti [1], M. Roger [1], E. Dubois [2], C. Filomeno [2,3], R. Caneira Gomes [2,3], G. Demouchy [2], M. Kouyaté [2], V. Peyre [2], G. Mériguet [2], R. Perzynski [2]
*1. Service de Physique de l'Etat Condensé, Gif-sur-Yvette, France*
*2. Laboratoire Physicochimie de Electrolytes et Nanosystþmes Interafaciaux, UPMC, CNRS, Paris, France*
*3. Grupo de Fluidos Complexos, Instituto de Fisica & Instituto de Quimica, Universidade de Brasilia, Brasilia, Brazil*

10:15-10:30 **TH.B.1_O3 - Reproducibility of barocaloric and magnetocaloric effects in Fe49Rh51**

E. Stern-Taulats [1], A. Gràcia-Condal [1], A. Planes [1], L. Mañosa [1], P. Lloveras [2], M. Barrio [2], J.L. Tamarit [2], S. Pramanick [3], S Majumdar [3], C. Frontera [4]
*1. Departament d'Estructura i Constituents de la Matèria, Facultat de Física, Universitat de Barcelona, Barcelona, Spain*
*2. Departament de Física i Enginyeria Nuclear, ETSEIB, Universitat Politècnica de Catalunya, Barcelona, Spain*

*3. Department of Solid State Physics, Indian Associaton for the Cultivation of Science, Jadavpur, Kolkata, India*
*4. Institut de Ciència de Materials de Barcelona, Bellaterra, Spain*

10:30-10:45 **TH.B.1_O4 – Magnetostructural phase transition in AlFe2B2 with magnetocaloric potential**

L. Lewis [1], R. Barua [1], B. Lejeune [1], E. Stern-Taulats [2], L. Mañosa [2], A. Planes [2]
*1. Department of Chemical Engineering, Northeastern University, Boston, United States*
*2. Departament D'Estructura I Constituents De Matèria, Facultat de Física, Universitat De Barcelona, Barcelona, Spain*

10:45-11:00 **TH.B.1_O5 - Giant magnetocaloric effect in alternating magnetic fields**

A. Aliev [1], A. Batdalov [1], L. Khanov [1], A. Êamantsev [2], E. Dilmieva [2], A. Mashirov [2], V. Koledov [2], V. Shavrov [2], M. Topic [2]
*1. Amirkhanov Institute Of Physics Of Daghestan Scientific Center, RAS, Makhachkala, Russian Federation*
*2. Kotelnikov Institute of Radio-engineering and Electronics of RAS, Moscow, Russian Federation*

## TH.C.1_MAGNETIC DEVICES AND NOVEL MATERIALS

**09:30-11:00 (ROOM H1)**

**Chair:** Diana Leitao

09:30-10:00 **TH.C.1_I1 - Magnetic Nanostructures for Magnonic and Logic Applications**

A. Adeyeye [1]
*1. National University Of Singapore, Singapore, Singapore*

10:00-10:15 **TH.C.1_O2 - Mechanical control of magnetic easy axis in a TbFeCo thin film deposited on a flexible substrate**

S. Ota [1], D. Bang [2], H. Awano [2], T. Kozeki [3], H. Akamine [3], T. Fujii [3], T. Namazu [3], T. Takenobu [4], T. Koyama [1], D. Chiba [1]
*1. Department Of Applied Physics, Faculty Of Engineering, The University Of Tokyo, Tokyo, Japan*
*2. Information Storage Materials Laboratory, Toyota Technological Institute, Nagoya, Japan*
*3. Division of Mechanical Systems, Department of Mechanical and Systems Engineering, University of Hyogo, Himeji, Japan*
*4. Department of Applied Physics, Waseda University, Tokyo, Japan*

10:15-10:30 **TH.C.1_O3 - High-sensitivity dc field magnetometer using nonlinear resonance magnetoelectric effect**

Y. Fetisov [4], D. Burdin [1], D. Chashin [2], N. Ekonomoov [3]
*1. Moscow State Technical University of Radio Engineering, Electronics and Automation, Moscow, Russian Federation*

10:30-10:45 **TH.C.1_O4 - New susceptibility measurement devices and their calibration**

J.L. Mesa Uña [1], M. Pérez [1], A. B. Fernandez [2], M. Maicas [1], C. Aroca [1], M. Díaz Michelena [1]
*1. Universidad Polítecnica De Madrid, Madrid, Spain*
*2. Instituto Nacional de Técnica Aeroespacial (INTA), Madrid, Spain*

10:45-11:00 **TH.C.1_O5 - Magnetostrictive stress reconfigurable thin film resonators in vacuum for magnetic field sensing**

P.Finkel [1], M. Staruch [1]
*1. US Naval Research Laboratory, Washington DC, United States*

## TH.D.1_QUANTUM MAGNETISM AND PHYSICS OF FRUSTRATION

**09:30-11:00 (ROOM H2)**

**Chair:** Collin Leslie Broholm

09:30-10:00 **TH.D.1_I1 - Long distance spin-spin entanglement and coexistence of multiple bipartite entanglements**

J.E. Lorenzo [1], S. Sahling [2], G. Remenyi [1], C. Paulsen [1], P. Monceau [1], C. Marin [3], A. Revcolevschi [4], L.P. Regnault [3], S. Marin [3]
*1. Université Grenoble Alpes, Institut Néel, CNRS & UJF Grenoble, Grenoble, France*
*2. TU Dresden, Institut für Festkörperphysik, Dresden, Germany*
*3. SPSMS, CEA-INAC/UJF, IMAPEC, Grenoble, France*
*4. SP2M, Université Paris-Sud, Orsay, France*

10:00-10:15 **TH.D.1_O2 - Magnetic interactions in the two-dimensional strongly coupled dimer system malachite**

M. Enderle [1], E. Canevet [1,2,4], B. Fak [1], R. Kremer [3], J.H. Chun [3]
*1. Institut Laue-Langevin, Grenoble, France*
*2. Laboratoire de Physique des Solides, Université Paris Sud, Orsay, France*
*3. Max-Planck Institute for Solid State Research, Stuttgart, Germany*
*4. Paul Scherrer Institut, Laboratory for Neutron Scattering and Imaging, Villigen PSI, Switzerland*

10:15-10:30 **TH.D.1_O3 - Possible quadrupolar quantum criticality in PrIr2Zn20**

A. Sakai [1], K. Matsumoto [2], T. Onimaru [2], T. Takabatake [2], P. Gegenwart [1]
*1. Universitat Augsburg, Institut Fur Physik, Experimentalphysik VI, Augsburg, Germany*
*2. Department of Quantum matter, Hiroshima University, Hiroshima, Japan*

10:30-11:00

**TH.D.1_I4 - Fluctuation driven spiral magnetic order near criticality in PrPtAl**

G. Abdul-Jabbar [1], D. Sokolov [1], C. O'Neill [1], C. Stock [1], D. Wermeille [2], F. Demmel [3], F. Kruger [3,4], A. Green [4], F. Levy-Bertrand [5], B. Grenier [6]
*1. University of Edinburgh, Edinburgh, United Kingdom*
*2. XMAS, ESRF, Grenoble, France*
*3. ISIS, STFC, Rutherford Appleton Laboratory, Harwell Oxford, United Kingdom*
*4. London Centre for Nanotechnology, University College London, London, United Kingdom*
*5. CNRS, Institut Neel, Grenoble, France*
*6. Universite Grenoble Alpes & CEA, INAC-SPSMS, Grenoble, France*

## TH.E.1_FERROICS AND MULTIFERROICS

**09:30-11:00 (ROOM H3)**

**Chair:** Silvia Picozzi

09:30-10:00

**TH.E.1_I1 - Tuning spin order and spin excitations in multiferroic BiFeO3 thin films**

D. Sando [1], A. Agbelele [2], C. Toulouse [3], J.P. Tetienne [4], I. Gros [4], V. Garcia [1], K. Garcia [1], S. Fusil[1], R. Rüffer [5], B. Dkhil [6], A. Barthélémy [1], V. Jacques [4], M. Cazayous [3], J. Juraszek [2], M. Bibes [1]
*1. Unité Mixte de Physique CNRS/Thales, Palaiseau, France*
*2. Groupe de Physique des Matériaux, UMR 6634 CNRS-Université de Rouen, Rouen, France*
*3. Laboratoire Matériaux et Phénomènes Quantiques, CNRS-Université Paris-Diderot, Paris France*
*4. Laboratoire Aimé Cotton, CNRS, Université Paris-Sud, Orsay, France*
*5. European Synchrotron Radiation Facility, Grenoble, France*
*6. Laboratoire SPMS, UMR 8580 CNRS-Ecole Centrale Paris, Châtenay-Malabry, France*

10:00-10:15

**TH.E.1_O2 - Artificially sinthesized chemical and magnetic structure at the domain walls of the epitaxial oxide TbMnO3**

César Magén [1], Saeedeh Farokhipoor [2,3] N, C. J.M. Daumont [3,4] N, Sriram Venkatesan [3,5], Etienne Snoeck [6], Jorge Iñiguez [7], Diego Rubí [3, 8], Maxim Mostovoy [3], Beatriz Noheda [3]
*1. Laboratorio de Microscopíaas Avanzadas (LMA), Instituto de Nanociencia de Aragón (INA) - ARAID, Universidad de Zaragoza, Spain*
*2. Department of Materials Science, University of Cambridge, United Kingdom*
*3. Zernike Institute for Advanced Materials, University of Groningen, The Netherlands*
*4. GREMAN UMR7347, Tours, France*
*5. Ludwig-Maximilians University Muenchen, Germany*
*6. CEMES-CNRS, Toulouse, France*
*7. ICMAB, Campus UAB, Bellaterra, Spain*
*8. GIA & INN, CAC-CNEA, San Martin, Argentina*

10:15-10:30 **TH.E.1_O3 - Magnetoelastic coupling in BiFeO3 (111) thin-films observed by non-resonant x-ray magnetic diffraction**

Noah Waterfield Price [1,2], Roger Johnson [1], Wittawat Saenrang [3], Alessandro Bombardi [2], Chang-Beom Eom [3], Paolo Radaelli [1]

*1. University Of Oxford, United Kingdom*
*2. Diamond Light Source, United Kingdom*
*3. University Of Wisconsin – Madison, United States*

10:30-11:00 **TH.E.1_I4 - Induced magnetism at correlated oxide interfaces**

J. Santamaria [1]

*1. Universidad Complutense de Madrid, Madrid, Spain*

## TH.F.1_FAST AND ULTRAFAST MAGNETIZATION DYNAMICS

**09:30-11:00 (ROOM A)**

**Chair:** Rubem Sommer

09:30-10:00 **TH.F.1_I1 - Multiscale dynamics as the key to all-optical magnetization reversal**

A. Kirilyuk [1]

*1. Radboud University, Institute For Molecules and Materials, Nijmegen, Netherlands*

10:00-10:15 **TH.F.1_O2 - Controlling the Magnetization Dynamics with Sequences of Picosecond Acoustic Pulses**

J. Kim [1], M. Vomir [1], J. Bigot [1]

*1. IPCMS, CNRS, Strasbourg, France*

10:15-10:30 **TH.F.1_O3 - Femtosecond control of magnetism via resonant optical pumping of Dy ions in multisublattice magnet DyFeO3**

R. Mikhaylovskiy[1], T. Huisman[1], A. Popov[2], A. Zvezdin[3], T. Rasing[1], R. Pisarev[4], A. Kimel[1]

*1. Radboud University Nijmegen, Netherlands*
*2. National Research University of Electronic Technology, Russian Federation*
*3. Prokhorov General Physics Institute, Russian Federation*
*4. Ioffe Physical-Technical Institute, Russian Federation*

10:30-10:45 **TH.F.1_O4 - Low Gilbert damping and high magnetic anisotropy in L10-FePd epitaxial thin films grown on MgO and SrTiO3 single crystal substrates**

S. Iihama [1], H. Naganuma [1], M. Oogane [1], S. Mizukami [2], Y. Ando [1]

*1. Department of Applied Physics, Tohoku University, Sendai, Japan*
*2. WPI-AIMR, Tohoku University, Sendai, Japan*

10:45-11:00 **TH.F.1_O5 - Laser Control of Magnetizations, Spin Currents and Orders in Quantum Magnets**

M. Sato [1]

*1. Japan Atomic Energy Agency, Ibaraki, Japan*

## TH.G.1_MAGNETOPHONICS AND MAGNETOPLASMONICS

**09:30-11:00 (ROOM B1-B3 )**

**Chair:** César de Julian

09:30-10:00 **TH.G.1_I1 - Magnetic degrees of freedom in nanophotonics**
R. Carminati [1]
*1. ESPCI ParisTech, Paris, France*

10:00-10:15 **TH.G.1_O2 - Magneto-optical mediated coupling of surface plasmon polaritons in 2D magnetoplasmonic crystals**
P. Vavassori [1]
*1. CIC Nanogune (ESG20903449), Donostia, Spain*

10:15-10:30 **TH.G.1_O3 - Plasmon-mediated large enhancement of magneto-optical activity in colloidal magnetic metals**
O. Herranz [1], G. Herranz [1]
*1. Icmab-Csic, Madrid, Spain*

10:30-10:45 **TH.G.1_O4 - Magnetic-field-induced photocurrent in metal-dielectric-semiconductor heterostructures based on cobalt nanoparticles SiO2(Co)/GaAs**
V. Pavlov [1], L. Lutsev [1], P. United Stateschev [1], A. Astretsov [1], A. Stognij [2], N. Novitskii [2], R. Pisarev [1]
*1. Ioffe Physical-Technical Institute, Russian Academy of Sciences, St. Petersburg, Russian Federation*
*2. Scientific and Practical Materials Research Centre, National Academy of Sciences of Belarus, Minsk, Belarus*

10:45-11:00 **TH.G.1_O5 - Polariton-mediated ultrafast magneto-optical modulation**
R. Subkhangulov[1], R. Mikaylovskiy[1], V. Kruglyak[2], T. Rasing[1], A. Kimel[1]
*1. Institute for Molecules and Materials, Radboud University Nijmegen, Nijmegen, Netherlands*
*2. School of Physics, University of Exeter, Exeter, United Kingdom*

## TH.H.1_APPLIED MAGNETISM OF ORGANIC COMPOUNDS AND BIOMEDICAL APPLICATIONS

**09:30-11:00 (ROOM D1-D3 )**

**Chair:** Mª Luisa Fernández Gubieda

09:30-10:00 **TH.H.1_I1 - Efficient and safe magnetic iron oxide nanoparticles for biomedicine**
M. Del Puerto Morales [1]
*1. Instituto De Ciencia De Materiales De Madrid, Consejo Superior De Investigaciones Cientificas, Madrid, Spaini*

10:00-10:15 **TH.H.1_O2 - Magnetic hyperthermia properties of nanoparticles inside lysosomes using kinetic Monte-Carlo simulations: influence of key parameters, of dipolar interactions and spatial variations of heating power.**

J. Carrey [1], R. Tan [1], M. Respaud [1]
*1. Laboratoire De Physique Et Chimie Des Nano-Objets, INSA Toulouse, CNRS, Université de Toulouse, Toulouse, France*

10:15-10:30 **TH.H.1_O3 - On-chip attomol level detection of proteins using forced magnetic bead transport**

R. S. Bejhed [1], B. Tian [1], K. Eriksson [1], R. Brucas [1], S. Oscarsson [2], M. Strömberg [1], P. Svedlindh [1], K. Gunnarsson [1]
*1. Uppsala University, Dep. of Engineering Sciences, Uppsala, Sweden*
*2. Stockholm University, Dep. of Organic Chemistry, Stockholm, Sweden*

10:30-10:45 **TH.H.1_O4 - Towards an on-chip platform for the investigation of cellular functions via magnetic nanoparticles**

D. Petti [1], M. Monticelli [1], E. Albisetti [1], D. Conca [1], A. Cattoni [2], M. Lupi [3], D. Parazzoli [4], R. Bertacco [1]
*1. PoliFab - Politecnico Di Milan, Milan, Italy*
*2. Laboratoire de Photonique et de Nanostructures (LPN) – CNRS, France*
*3. Instituto di Ricerche Farmacologiche Mario Negri, Instituto di Ricerche Farmacologiche Mario Negri, Milan, Italy*
*4. IFOM-FIRC, Institute of Molecular Oncology, Milan, Italy*

10:45-11:00 **TH.H.1_O5 - "in-planta" penetration and translocation of Fe@C magnetic nanoparticles**

C. Marquina [1,2], Z. Cifuentes [3], M.J. Coronado [4], E. Corredor [5], L. Custardoy [6,7], J.M. de la Fuente[1], L. De Matteis [6], R. Fernández-Pacheco [6,7], P. González-Melendi [8], M.R. Ibarra [2,6,7]
*1. Instituto De Ciencia De Materiales De Aragón (ICMA); CSIC-UZ, Zaragoza, Spain*
*2. Departamento de Física de la Materia Condensada; Universidad de Zaragoza, Zaragoza, Spain*
*3. IFAPA, Centro Alameda del Obispo, área de Mejora y Biotecnología; Junta de Andalucía, Córdoba, Spain*
*4. Hospital Universitario Puerta de Hierro; Majadahonda, Madrid, Spain*
*5. Centro de Investigaciones Biológicas (CIB); CSIC, Madrid, Spain*
*6. Instituto de Nanociencia de Aragón (INA); Universidad de Zaragoza, Zaragoza, Spain*
*7. Laboratorio de Microscopías Avanzadas (LMA); Universidad de Zaragoza, Zaragoza, Spain*
*8. ETSI Agrónomos; Universidad Politécnica de Madrid, Madrid, Spain*
*9. Instituto de Agricultura Sostenible (IAS); CSIC, Córdoba, Spain*

## TH.I.1_METAL SPINTRONICS

**09:30-11:00 (ROOM D4-D6 )**

**Chair:** Roy Chantrell

09:30-10:00

**TH.I.1_I1 - Spin-polarization in reciprocal space: Analyzing the spin structure of electronic states by quasi-particle interference**

M. Bode [1]
*1. Wuerzburg University, Würzburg, Germany*

10:00-10:15

**TH.I.1_O2 - Eddy current interactions in a Ferromagnet-Normal metal bilayer structure, and its impact on ferromagnetic resonance lineshapes**

V. Flovik [1], F. Macià [2], A. Kent [3], E. Wahlström [1]
*1. Norwegian University Of Science And Technology, Trondheim, Norway*
*2. Universitad de Barcelona, Barcelona, Spain*
*3. New York University, New York, United States*

10:15-10:30

**TH.I.1_O3 - Femtosecond control of spin-polarized photocurrents at the interfaces of metallic ferromagnetic heterostructures using circular polarized light**

T. J. Huisman [1], R.V. Mikhaylovskiy [1], J.D. Costa [2,3], E. Paz [2], J. Ventura [3], P.P. Freitas [2], Th. Rasing [1], A. V. Kimel [1]
*1. Radboud University Nijmegen, Institute For Molecules And Materials, Nijmegen, Netherlands*
*2. International Iberian Nanotechnology Laboratory, INL, Braga, Portugal*
*3. IN-IFIMUP, Porto, Portugal*

10:30-10:45

**TH.I.1_O4 - Spin Hall effect in spin glass systems**

Y. Niimi [1], B. Gu [2,3], M. Kimata [1], Y. Omori [1], T. Ziman [4], S. Maekawa [2,3], A. Fert [5], Y. Otani [1,6]
*1. ISSP, University Of Tokyo, Tokyo, Japan*
*2. Advanced Science Research Center, Japan Atomic Energy Agency, Japan*
*3. CREST, Japan Science and Technology Agency, Japan*
*4. CNRS and Institut Laue Langevin, Grenoble, France*
*5. CNRS/Thales, Palaiseau, France*
*6. RIKEN-CEMS, Saitama, Japan*

10:45-11:00

**TH.I.1_O5 - Mn2Au, a new material for antiferromagnetic spintronics**

V.M.T.S. Barthem [1], C.V. Colin [2], R. Haettel [2], D. Givord [1,2]
*1. Instituto De Fisica, Universidade Federal Do Rio De Janeiro, Rio De Janeiro, Brazil*
*2. CNRS/Université Grenoble-Alpes, Institut Néel, Grenoble, France*

# TH.J.1_ADVANCED METHODS OF SPIN STRUCTURE DETERMINATION

**09:30-11:00 (ROOM E1-E3 )**

**Chair:** Mar García Hernández

09:30-10:00

**TH.J.1_I1 - Advances in Magnetic Structure Determination. Instruments and Methods.**

J. Rodriguez-Carvajal [1]
*1. Institut Laue-Langevin, Grenoble, France*

10:00-10:15

**TH.J.1_O2 - A case study in magnetic pair distribution function (mPDF) analysis: Local magnetic structure of MnO**

B. Frandsen [1], S. Billinge [2,3]
*1. Department of Physics, Columbia University, United States*
*2. Department of Applied Physics and Applied Mathematics, Columbia University, United States*
*3. Condensed Matter Physics and Materials Science, Brookhaven National Laboratory, United States*

10:15-10:30

**TH.J.1_O3 - Magnetic behavior of a Mn0.85Co0.15WO4 multiferroic crystal investigated by Resonant magnetic x-ray scattering**

J. Herrero-Martín [1,2], A.N. Dobrynin [3], C. Mazzoli [4], P. Steadman [3], P. Bencok [3], R. Fan [3], A.A. Mukhin [5], V. Skumryev [6,7], J. L. García-Muñoz [2]
*1. ALBA Synchrotron Light Source, Barcelona, Spain*
*2. Institut de Ciència de Materials de Barcelona (ICMAB-CSIC), Barcelona, Spain*
*3. Diamond Light Source, Didcot, Oxfordshire, United Kingdom*
*4. Dipartimento di Fisica, Politecnico di Milan, Milan, Italy*
*5. Prokhorov General Physics Institute, Russian Academy of Science, Moscow, Russian Federation*
*6. Institució Catalana de Recerca i Estudis Avançats (ICREA), Barcelona, Spain*
*7. Departament de Física, Universitat Autónoma de Barcelona, Barcelona, Spain*

10:30-10:45

**TH.J.1_O4 - Disentangling the spin and orbital moments in the heavy fermion system CeRu2Al10 using polarised x-rays**

P. Dean [1], P. Hatton [1], A. Dobrynin [2], T. Takabatake [3], Y. Muro [3]
*1. Department of Physics, Durham University, United Kingdom*
*2. Diamond Light Source, Harwell Science and Innovation Campus, Didcot, Oxfordshire, United Kingdom*
*3. Institute for Advanced Materials Research, Hiroshima University, Hiroshima, Japan*

10:45-11:00

**TH.J.1_O5 - First-Principles Molecular Spin Dynamics Study on the Magnetic Structure of Mn-Based Alloys with Cu3Au-Type Crystal Structure**

T. Uchida [1], N. Kimura [1], Y. Kakehashi [2]
*1. Hokkaido University of Science, Hokkaido, Japan*
*2. University of the Ryukyus, Okinawa, Japan*

## TH.A.2_MAGNETIC PHASE TRANSITIONS AND MAGNETIC INTERACTIONS

**11:30-13:15 (ROOM J)**

**Chair:** Je-Geun Park

11:30-11:45

**TH.A.2_O1 - Magneto-elastic coupling across the first order transition in the distorted kagome lattice antiferromagnet Dy3Ru4Al12**

M.S. Henriques[1,2], D.I. Gorbunov[1,3], A.V. Andreev[1], A. Gukasov[4], V. Petříček[1], Y. Skourski[3], M. Vališka[5], J. Prokleška[5], D. Kriegner[5], Z. Matěj[5], A.P. Gonçalves[2]
*1. Institute Of Physics ASCR, Prague, Czech Republic*
*2. CCTN, IST/CFMCUL, University of Lisbon, Nuclear and Technological Campus, Bobadela, Portugal*
*3. Dresden High Magnetic Field Laboratory (HLD), Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany*
*4. Laboratoire Léon Brillouin, CE de Saclay, Gif-sur-Yvette, France*
*5. Charles University in Prague, Faculty of Mathematics and Physics, Department of Condensed Matter Physics, Prague, Czech Republic*

11:45-12:00

**TH.A.2_O2 - Chiral magnetism in rare-earth intermetallic compounds YbNi3Al9 and Yb(Ni0.94Cu0.06)3Al9**

S. Ohara [1], H. Ninomiya [1], Y. Matsumoto [1], Y. KoUnited Stateska [2], K. Ohishi [3], J. Akimitsu [4]
*1. Nagoya Institute Of Technology, Nagoya, Japan*
*2. Graduate School of Science, Hiroshima University, Hiroshima, Japan*
*3. Research Center for Neutron Science and Technology, Comprehensive Research Organization for Science and Society (CROSS), Naka, Japan*
*4. Department of Physics and Mathematics, Aoyama-Gakunin University, Shibuya, Japan*

12:00-12:15

**TH.A.2_O3 - Observation of large anomalous Kerr rotations in the Skyrmionic Mott insulator Cu2OSeO3**

R.B. Versteeg [1], S. Schöfer [1], A. Aqeel [2], T.T.M. Palstra [2], P.H.M. Van Loosdrecht [1]
*1. University Of Cologne - II. Physics Institute, Cologne, Germany*
*2. Zernike Institute for Advanced Materials, University of Groningen, Groningen, The Netherlands*

12:15-12:30

**TH.A.2_O4 - Observation of various magnetic field-induced states in MnGe with cubic B20 type structure**

R. Viennois [1], C. Reibel [1], D. Ravot [1], R. Debord [2], S. Pailhes [2]
*1. Institut Charles Gerhardt, Université Montpellier, Montpellier, France*
*2. Institut Lumière Matière, Université* Claude Bernard - *Lyon 1, Villeurbanne, France*

12:30-12:45 **TH.A.2_O5 - The stable magnetic phase of the Gd doped topological insulator, Bi2-xGdxTe3**

E.H. Shin [1], M.H. Chung [2], M. Kim [1], H. Kim [1]
*1. Sookmyung Women's University, Seoul, Republic of Korea*
*2. Sogang University, Seoul, Republic of Korea*

12:45-13:00 **TH.A.2_O6 - Magnetic order and Excitations in the Magnetic Dirac Materials (Ca,Sr)MnBi2**

A. Princep [1], A. Boothroyd [1], Y. Guo [1], X. Zhang [2], P. Manuel [3], D. Khalyavin [3], I. Mazin [4], Y. Shi [2], A Piovano [5]
*1. Department of Physics, University of Oxford, Clarendon Laboratory, Parks Road, Oxford, United Kingdom*
*2. Beijing National Laboratory for Condensed Matter Physics, Institute of Physics, Chinese Academy of Sciences, Beijing, China*
*3. ISIS Facility, Rutherford Appleton Laboratory, Chilton, Didcot, United Kingdom*
*4. Naval Research Laboratory, Washington DC, United States*
*5. Institut Laue-Langevin (ILL), Grenoble, France*

13:00-13:15 **TH.A.2_O7 - Magnetism of disordered Heusler alloys**

M. Leitner[1], P. Neibecker[1], W. Petry[1]
*1. Technische Universität München, Garching, Germany*

## TH.B.2_TOPOLOGICAL INSULATORS AND METAL INSULATOR TRANSITIONS

**11:30-13:00 (ROOM F)**

**Chair:** Piers Coleman

11:30-12:00 **TH.B.2_I1 - Bismuth: Playground For Quantum And Spintronic Experiments**

S. Sangiao [1], M. del C. Martínez-Velarte [1], I. Lucas [1], César Magén [1,2], N. Marcano [3,4], J.M. Michalik [1,4], M. Viret [5], L. Morellón [1], M.R. Ibarra [1], J.M. De Teresa [1,4]
*1. Laboratorio de Microscopias Avanzadas (LMA), Instituto de Nanociencia de Aragón (INA), Universidad de Zaragoza, Zaragoza, Spain*
*2. Fundación ARAID, Zaragoza, Spain*
*3. Centro Universitario de la Defensa, Zaragoza, Spain*
*4. Instituto de Ciencia de Materiales de Aragón (ICMA), CSIC-Universidad de Zaragoza, Zaragoza, Spain*
*5. CEA Saclay, Gif-sur-Yvette, France*

12:00-12:15 **TH.B.2_O2 - Intrinsic conduction through topological surface states of insulating Bi_2Te_3 epitaxial thin films**

K. Höfer [1], C. Becker [1], D. Rata [1], J. Swanson [1,2], P. Thalmeier [1], L.H. Tjeng [1]
*1. Max Planck Institute For Chemical Physics of Solids, Dresden, Germany*
*2. University of British Columbia, Vancouver, Canada*

12:15-12:30 **TH.B.2_O3 - Effect of Co adatoms on Topological Insulator Bi2Se2Te**

M. C. Martinez-Velarte [1,2], M. Moro-Lagares [1,2], T. M. Riedemann [3], T. A. Lograsso [3,4], L. Morellon [1,2], M. R. Ibarra [1,2], D. Serrate [1,2]

*1. Institute of Nanoscience of Aragon (INA) and Laboratory for Advanced Microscopy (LMA), University of Zaragoza, Zaragoza, Spain*

*2. Dpto. de Fisica de la Materia Condensada, Universidad de Zaragoza, Zaragoza, Spain*

*3. Ames Laboratory, Ames, United States*

*4. Department of Materials Sciences and Engineering, Iowa State University, Ames, United States*

12:30-12:45 **TH.B.2_O4 - Semimetal-insulator transition in Dirac semimetals induced by long-range Coulomb interactions**

A. Sekine [1], K. Nomura [1]

*1. Institute for Materials Research, Tohoku University, Sendai, Japan*

12:45-13:00 **TH.B.2_O5 - Spin and charge current driven by magnetization dynamics on disordered surface of doped topological insulators**

K. Taguchi [1], K. Shintani [1], Y. Tanaka [1]

*1. Department Of Materials, Physics And Energy Engineering, Graduate School Of Engineering, Nagoya University, Nagoya, Spain*

## TH.C.2_MAGNETIC THIN FILMS AND MULTILAYERS

**11:30-13:00 (ROOM H1)**

**Chair:** Justice Msomi

11:30-12:00 **TH.C.2_I1 - Field-dependent Size and Shape of Single Magnetic Skyrmions**

N. Romming [1], André Kubetzka [1], C. Hanneken [1], K. von Bergmann [1], R. Wiesendanger [1]

*1. Department of Physics, University of Hamburg, Hamburg, Germany*

12:00-12:15 **TH.C.2_O2 - In-situ TEM study of temperature-dependent dichroism: application to epitaxial MnAs/GaAs(001)**

X.Fu [1], D. Demaille [2], V. Etgens [2], S. Joulié [1], G. Seine [1], R. Arras [1], V. Serin [1], B. Warot [1]

*1. CEMES-CNRS, Toulouse, France*

*2. UPMC (Université Pierre et Marie Curie), Paris, France*

12:15-12:30 **TH.C.2_O3 - Experimental evidence of ultra-small particles in magnetic metal-insulating nanogranular films**

M. Garcia Del Muro [1], Z. Konstantinovic [2], A. Labarta [1], X. Batlle [1]

*1. Dpt. Física Fonamental and IN2UB, Universitat de Barcelona, Barcelona, Spain*

*2. ICMAB-CSIC, Bellaterra, Spain*

12:30-12:45 **TH.C.2_O4 - Low frequency dynamics of Magnetic Droplet Solitons in Spin Transfer Nanocontacts**

F. Macià [1], J.M. Hernández [1], S. Lendínez [1], D. Backes [2], A.D. Kent [2]
*1. University of Barcelona, Barcelona, Spain*
*2. New York University, New York, United States*

12:45-13:00 **TH.C.2_O5 - Light irradiation-driven modifications of Pt/Co/Pt trilayers**

A. Maziewski [1], I. Sveklo [1], J. Kisielewski [1], Z. Kurant [1], A. Bartnik [2], M. Jakubowski [3], R. Sobierajski [3], J. Pełka [3], A. Wawro [3]
*1. Faculty of Physics, University of Bialystok, Warsaw, Poland*
*2. Institute of Optoelectronics, Military University of Technology, Warsaw, Poland*
*3. Institute of Physics, Polish Academy of Sciences, Warsaw, Poland*

## TH.D.2_QUANTUM MAGNETISM AND PHYSICS OF FRUSTRATION

**11:30-13:00 (ROOM H2)**

**Chair:** José Emilio Lorenzo

11:30-12:00 **TH.D.2_I1 - Quantum fluctuations in spin-ice-like Pr2Zr2O7***

C. Broholm [1]
*1. Johns Hopkins University, Baltimore, United States*

12:00-12:15 **TH.D.2_O2 - Spin liquid versus long range magnetic order in the frustrated body-centered tetragonal lattice**

S. Burdin [1], C. Thomas [2], C. Pépin [3], A. Ferraz [4], C. Lacroix [5]
*1. LOMA, CNRS & Bordeaux University, Bordeaux, France*
*2. Instituto de Fisica, UFRGS, Porto Alegre, Brazil*
*3. Institut de Physique Théorique, CEA-Saclay, France*
*4. International Institute of Physics, UFRGN, Natal, Brazil*
*5. Institut Néel, Université Grenoble Alpes, Grenoble, France*

12:15-12:30 **TH.D.2_O3 - Emergence of a Connected Family of Chiral Spin Liquids on the Kagome Lattice**

K. Essafi [1], L.D.C. Jaubert [1], O.J. Benton [1]
*1. Okinawa Institute Of Science & Technology, Onna-Son, Japan*

12:30-12:45 **TH.D.2_O4 - The role of interchain coupling and exchange anisotropy for the existence of quantum multipolar phases in strongly frustrated edge-shared CuO2 chain compounds at high magnetic fields near saturation**

S.L. Drechsler [1], S. Nishimoto [1], H. Rosner [2], J. van den Brink [1], R. Kuzian [3], J. Richter [4]
*1. IFW-Dresden, Dresdem, Germany*
*2. Max-Planck-Institute Chemische Physik fester Stoffe, Dresden, Germany*
*3. Institute of Materials Sciences, Kiyv, Ukraine*
*4. Institut f. Theoretische Physik, Universitaet Magdeburg, Germany*

12:45-13:00

**TH.D.2_O5 - Projective symmetry of partons in the Kitaev honeycomb model**

P. Mellado [1], O. Petrova [2], O. Tchernyshyov [3]
*1. Department of Engineering and Sciences, Adolfo Ibañez University, Santiago, Chile*
*2. Max Planck Institute for the Physics of Complex Systems, Dresden, Germany*
*3. Department of Physics and Astronomy, Johns Hopkins University, Baltimore, United States*

## TH.E.2_FERROICS AND MULTIFERROICS

**11:30-13:00 (ROOM H3)**

**Chair:** Daniel Khomskii

11:30-12:00

**TH.E.2_I1 - Spin dynamics in multiferroic BiFeO3: interplay of DM interaction and anisotropy**

J. Jeong [1,2], M. Duc Le [1], E. Goremychkin [3], Tatiana Guidi [3], Kenji Nakajima [4], Philippe Bourges [5], Sylvain Petit [5], Shunsuke Furukawa [6], Yong Baek Kim [7], Gun Sang Jeon [8], S. Kim [9], S. Lee [9], V. Kiryukhin [10], S. Cheong [10], J. Park [1,2]
*1. Center for Correlated Electron Systems, Institute for Basic Science (IBS), Pohang, Republic of Korea*
*2. Department of Physics and Astronomy, Seoul National University, Republic of Korea*
*3. ISIS Facility, STFC Rutherford Appleton Laboratory, United Kingdom*
*4. Neutron Science Section, MLF Division, J-PARC Center, Japan*
*5. Laboratoire Leon Brillouin, CEA-CNRS, Gif sur Yvette, France*
*6. Department of Physics, University of Tokyo, Japan*
*7. Department of Physics, University of Toronto, Canada*
*8. Department of Physics, Ewha Womans University, Seoul, Republic of Korea*
*9. Neutron Science Division, Korea Atomic Energy Research Institute, Daejeon, Republic of Korea*
*10. Rutgers Center for Emergent Materials and Department of Physics and Astronomy, Rutgers University, United States*

12:00-12:15

**TH.E.2_O2 - Multiferroic Iron Oxide Thin Films at Room-Temperature**

M. Gich
*1. Institut de Ciència de Materials de Barcelona-CSIC, Bellaterra, Spain*

12:15-12:30

**TH.E.2_O3 - Theory of antisymmetric spin-pair dependent electric polarization in multiferroic BiFeO3**

S. Miyahara [1], N. Furukawa [2]
*1. Fukuoka University, Fukuoka, Japan*
*2. Aoyama Gakuin University, Tokyo, Japan*

12:30-12:45 **TH.E.2_O4 - Non-volatile magnetoelectric memory effects in multiferroic BiFeO3**

M. Tokunaga [1], S. Kawachi [1], A. Miyake [1], T. Ito [2], H. Kuwahara [3]
*1. The Institute For Solid State Physics, The University Of Tokyo, Tokyo, Japan*
*2. National Institute of Advanced Industrial Science and Technology (AIST), Japan*
*3. Sophia University, Chiyoda, Japan*

12:45-13:00 **TH.E.2_O5 - Suppression of mixed-phase areas in highly elongated BiFeO3 thin films on NdAlO3 substrates**

C. Woo [1], J. Lee [1], K. Chu [1], B. Jang [1], Y. Kim [2], T. Koo[3], P. Yang [4], Y. Qi [5], Z. Chen [5], L. Chen [5]
*1. Department of Physics, KAIST, Daejeon, Republic of Korea*
*2. Gumi Electronics & Information Technology Research Institute, Gumi, Gyungbuk, Republic of Korea*
*3. Pohang Accelerator Laboratory, Pohang, Gyungbuk, Republic of Korea*
*4. Singapore Synchrotron Light Source, National University of Sinapore, Singapore, Singapore*
*5. School of Materials Science and Engineering, Nanyang Technological University, Singapore, Singapore*
*6. Department of Chemistry, POSTECH, Pohang, Gyungbuk, Republic of Korea*
*7. Institute for the NanoCentury, KAIST, Daejeon, Republic of Korea*

## TH.F.2_FAST AND ULTRAFAST MAGNETIZATION DYNAMICS

**11:30-13:00 (ROOM A)**

**Chair:** Andrei Kirilyuk

11:30-12:00 **TH.F.2_I1 - Ultrafast demagnetization induced by hot electrons**

N. Bergeard [1], G. Malinowski [1], M. Hehn [1], S. Mangin [1]
*1. Institut Jean Lamour, Université de Lorraine – CNRS, France*

12:00-12:15 **TH.F.2_O2 - Enhancement of Laser-Induced Ultrafast Demagnetization using Localized Surface Plasmons**

H. Xu [1], G. Hajisalem [2], G. Steeves [1], R. Gordon [2], B. Choi [1]
*1. Department of Physics And Astronomy, University Of Victoria, Canada*
*2. Department of Electrical and Computer Engineering, University of Victoria, Canada*

12:15-12:30 **TH.F.2_O3 - Ultrafast energy diffusivity dependency of all-optical magnetization switching in multi-layer structured GdFeCo thin films**

H. Yoshikawa [1], A. Tsukamoto [2]
*1. Graduate School Of Science And Technology, Nihon University, Chiyoda, Japan*
*2. College of Science and Technology, Nihon University, Chiyoda, Japan*

12:30-12:45 **TH.F.2_O4 - Ultrafast control of the exchange interaction with electric fields**

J. Mentink [1,2], K. Balzer [2], M. Eckstein [2]
*1. Radboud University Nijmegen, Netherlands.*
*2. University of Hamburg, Germany*

12:45-13:00 **TH.F.2_O5 - Terahertz-driven ultrafast magnetization dynamics in canted antiferromagnetic YFeO3**

J. Lee [1], T. Kim [1], S. Kovalev [2], Y. Tokunaga [3], Y. Tokura [3], M. Gensch [2]
*1. Gwangju Institute of Science and Technology (GIST), Gwangju, Korea*
*2. Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany*
*3. RIKEN Center for Emergent Matter Science (CEMS), Wako, Saitama, Japan*

## TH.G.2_MAGNETIC NANORODS, NANOWIRES AND NANOTUBES

**11:30-13:15 (ROOM B1-B3)**

**Chair:** Olivier Fruchart

11:30-12:00 **TH.G.2_I1 - Domain wall propagation along cylindrical nanoelenents**

D. Altbir[1], R. Neumann[2], M. Bahiana[3], S. Allende[1], D. Görlitz[4], K. Nielsch[4]
*1. Universidad de Santiago de Chile, Santiago, Chile*
*2. IBM Research, Río de Janeiro, Brazil*
*3. Instituto de Física, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil*
*4. Institute of Nanostructure and Solid State Physics, University of Hamburg, Hamburg, Germany*

12:00-12:15 **TH.G.2_O2 - Structural and magnetotransport properties of FexCo(1-x) nanowires prepared by focused electron beam induced deposition with a heteronuclear metal carbonyl precursor**

F. Porrati[1], S. Barth[2], F. Biegger[2], C. Gspan[3], H. Plank[3], M. Huth[1]
*1. Goethe University Frankfurtt a. M., Institute of Physics, Frankfurt, Germany*
*2. Vienna University of Technology, Institute of Materials Chemistry, Getreidemarkt, Wien, Austria*
*3. Graz University of Technology, Institute for Electron Microscopy and Nanoanalysis, Graz, Austria*

12:15-12:30 **TH.G.2_O3 - Investigating the dipolar interactions in assemblies of ferromagnetic nano-objects by Ferromagnetic Nuclear Resonance**

I. Camara[1], Y. Shin[1,2], N. Liakakos[3], C. Achkar[3], M. Respaud[3], K. Soulantica[3], T. Blon[3], M. Bailleul[1], C. Meny [1,2]
*1. Institut de Physique et Chimie des Matériaux de Strasbourg (IPCMS), CNRS- University of Strasbourg, Strasbourg, France*
*2. Department of Physics, CNRS-Ewha International Research Center, Ewha Womans University, Seoul, Republic of Korea*
*3. Laboratoire de Physique et Chimie des Nano-objets (LPCNO), INSA, Toulouse, France*

12:30-12:45 **TH.G.2_O4 - Magnetic anisotropy of (ZnTe)/Co core/shell nanowires grown by MBE**

P. Misiuna[1], T. Wojciechowski[1] P. Dłużewski[1] B. Kurowska[1], M. Wiater[1], S. Lewińska[1], A. Ślawska-Waniewska[1], A. Wawro[1], E. Milińska[1], T. Wojtowicz[1]
*1. Institute Of Physics Polish Academy Of Sciences, Warsaw, Poland*

12:45-13:00 **TH.G.2_O5 - Manipulation of Transverse Domain Wall profile for Logic Devices**

R. Maddu [1], S. Goolaup [1], C. Murapaka[1], W. Lew[1]
*1. School Of Physical And Mathematical Sciences, Nanyang Technological University, Singapore*

13:00-13:15 **TH.G.2_O6 - Manipulating vortex domain walls with mechanical strain**

A. Rushforth [1], R. Beardsley [1], D. Parkes [1], S. Bowe [1], K. Edmonds [1], B. Gallagher [1], T.Hayward [2], J.Wheelwright [2], D. Allwood [2], A. Irvine [3]
*1. University Of Nottingham, Nottingham, United Kingdom*
*2. University of Sheffield, Sheffield, United Kingdom*
*3. Cambridge University, Cambridge, United Kingdom*
*4. University of York, York, United Kingdom*

## TH.H.2_APPLIED MAGNETISM OF ORGANIC COMPOUNDS AND BIOMEDICAL APPLICATIONS

**11:30-13:00 (ROOM D1-D3)**

**Chair:** Clara Marquina

11:30-12:00 **TH.H.2_I1 - Tumor ablation by exploiting magnetic nanoparticles and magnetic nanoparticle functionalization to achieve heat-mediated drug delivery and antibody tumor targeting**

T. Pellegrino [1]
*1. Istituto Italiano di Tecnologia, Genova, Italy*

12:00-12:15 **TH.H.2_O2 - Real-Time Analysis of Magnetic Hyperthermia Experiments on Living Cells under a Confocal Microscope**

V. Connord [1], P. Clerc [2], N. Hallali [1], D. El Hajj Diab [2], D. Fourmy [2], V. Gigoux [2], J. Carrey [1]
*1. NanoMagnetism, LPCNO Toulouse, Toulouse, France*
*2. RCTC, INSERM Toulouse, Toulouse, France*

12:15-12:30 **TH.H.2_O3 - Exploiting the theranostic potential of dendronised-iron oxide nanoparticles**

C. Blanco-Andujar [1], H. Dib [1], D. Mertz [1], E. Robinet [2], F. Meyer [2], D. Felder [1], S. Begin-Colin [1]
*1. Institut de Physique et Chimie des Matériaux de Strasbourg (IPCMS), UMR-7504 CNRS-Université de Strasbourg, Strasbourg, France*
*2. INSERM 1121, Faculté de Chirurgie Dentaire, Université de Strasbourg, Strasbourg, France*

12:30-12:45 **TH.H.2_O4 - Labb-on-a-chip platform for detecting pathogenic DNA via magnetic tunnelling junction-based biosensors**

D. Petti [1], E. Albisetti [1], P. Sharma [1], M. Massetti [1], F. Damin [2], G. Falduti [3], M. Cretich [2], E. Marchisio [3], M. Chiari [2], R. Bertacco [1]
*1. PoliFab - Politecnico Di Milan, Milan, Italy*
*2. Istituto di Chimica del Riconoscimento Molecolare- CNR, Milan, Italy*
*3. Dia.Pro Diagnostic BioProbes srl, Milan, Italy*

12:45-13:00 **TH.H.2_O5 - Optomagnetic read-out system for detection of pathogens based on magnetic nanobead dynamics**

R. S. Bejhed [1], T. Zardán Gómez de la Torre [1], M. Donolato [2], M. F. Hansen [2], M. Strömberg [1], P. Svedlindh [1]
*1. Uppsala University, Dep. of Engineering Sciences, Uppsala, Sweden*
*2.Technical University of Denmark, Department of Micro- and Nanotechnology, Lyngby, Denmark*

## TH.I.2_METAL SPINTRONICS

**11:30-13:00 (ROOM D4-D6)**

**Chair:** Mathias Bode

11:30-11:45 **TH.I.2_O1 - Current-Driven Magnetization Switching via Spin-Orbit Torque in Perpendicularly Magnetized Hf CoFeB (MgO or $TaO_x$) Films with Structural Asymmetry**

M. Akyol [1,2], G. Yu [1], J. G. Alzate [1], P. Upadhyaya [1], X. Li [1], K. L. Wong [1], A. Ekicibil [2], P. K. Amiri [1], K. L. Wang [1]
*1. University Of California, Los Angeles (UCLA), United States*
*2. University of Cukurova, Adana, Turkey*

11:45-12:00 **TH.I.2_O2 - Chiral-based spin devices without a permanent magnet**

O. Ben Dor [1], Y. Paltiel [1]
*1. The Hebrew University Of JerUnited Stateslem, JerUnited Stateslem, Israel*

12:00-12:15 **TH.I.2_O3 - Spin current conversion in Bi thin films**

M. Shiraishi [1,2], H. Emoto [2], Y. Ando [1], G. Eguchi [1], T. Shinjo [1], Y. Fuseya [3], E. Shikoh [2]
*1. Kyoto University, Kyoto, Japan*
*2. Osaka University, Suita, Japan*
*3. The University of Electro- Communications, Cofu, Japan*

12:15-12:30 **TH.I.2_O4 - Spin–to-charge current conversion in Pt, Au and Bi**

M. Isasa [1], M.C. Marínez-Velarte [2,3], E. Villamor [1], C. Magen [2,3,4], L. Morellón [2,3], J.M. De Teresa[2,3,5], M. R. Ibarra [2,3], M. Gradhand [6], L. E. Hueso [1,7], F. Casanova [1,7]
*1. CIC Nanogune, Guipúzcoa, Spain*
*2. Laboratorio de Microscopías Avanzadas (LMA), Instituto de Nanociencia de Aragón (INA), Zaragoza, Spain*
*3. Departamento de Física de la Materia Condensada, Universidad de Zaragoza, Spain*
*4. Fundación ARAID, Zaragoza, Spain*
*5. Instituto de Ciencia de Materiales de Aragón (ICMA), Universidad de Zaragoza-CSIC, Zaragoza, Spain*
*6. H. H. Wills Physics Laboratory, University of Bristol, Bristol, United Kingdom*
*7. IKERBASQUE, Basque Foundation for Science, Bizkaia, Spain*

12:30-12:45 **TH.I.2_O5 - Towards the control of the sign of spin Hall effect in the Cu alloys doped with 5d elements**

Z. Xu [1], B. Gu [1], M. Mori [1], T. Ziman [2], S. Maekawa [1,3]
*1. Advanced Science Research Center, Japan Atomic Energy Agency, Tokai, Japan*
*2. Institut Laue Langevin, Grenoble, France*
*3. ERATO, Japan Science and Technology Agency, Sendai, Japan*

12:45-13:00 **TH.I.2_O6 - Evidence of magnonic charge pumping in single layers of permalloy**

A. Azevedo [1], R. Cunha [1], F. Estrada [1,3], O. Alves-Santos [1], J. Mendes [1], L. Vilela-Leão [1], R. Rodríguez-Suárez [1,2], S. Rezende [2]
*1. Federal University Of Pernambuco, Recife, Brazil*
*2. Pontificia Universidad Católica de Chile, Santiago de Chile, Chile*
*3. Universidad Michoacana de San Nicolás de Hidalgo, Morelia, Mexico*

## TH.J.2_THEORY AND NEW DEVELOPMENTS OF STRONGLY CORRELATED MATTER

**11:30-13:00 (ROOM E1-E3)**

**Chair:** Belen Valenzuela

11:30-12:00 **TH.J.2_I1 - On the dual fermion approach to charge order, spin frustration, and transport**

S. Kirchner[1]
*1. Center For Correlated Matter, Zhejiang University, Hangzhou, China*

12:00-12:15 **TH.J.2_O2 - Colossal thermopower deep inside the SDW state of (TMTSF)2PF6**

Y. Machida [1], X. Lin [3], K. Izawa [1], W. Kang [2], K. Behnia [3]
*1. Tokyo Institute of Technology, Tokyo, Japan*
*2. Ewha Womans University, Seoul, Republic of Korea*
*3. ESPCI, Paris, France*

12:30-12:45 **TH.J.2_O4 - Determination of the sign of the Dzyaloshinskii-Moriya interaction in crystals**
Andrei Rogalev [1], V. E. Dmitrienko [2], F. de Bergevin [1], E. N. Ovchinnikova [3], F. Wilhelm [1], J. Kokubun [4]
*1. ESRF, Grenoble, France*
*2. Institute of Crystallography, Moscow, Russian Federation*
*3. Moscow State University, Moscow, Russian Federation*
*4. Tokyo University of Science, Tokyo, Japan*

12:45-13:00 **TH.J.2_O5 - Spin Excitons in Heavy Fermion Semi-Metals**
P. Riseborough [1]
*1. Physics Department, Temple University, Philadelphia, United States*

## TH.SEMIPLENARY-1
**16:00-16:45 (AUDITORIUM)**
**Chair:** Sergio Magalhaes

16:00-16:45 **TH.SP-1 - Novel topological phases in strongly correlated electron systems**
Leon Balents
*Kavli Institute For Theoretical Physics, Santa Barbara, United States*

## TH.SEMIPLENARY-2
**16:00-16:45 (ROOM J)**
**Chair:** Liesl Folks

16:00-16:45 **TH.SP-2 -Electric Manipulation of Spin Textures**
Axel Hoffmann
*Argonne National Laboratory, Argonne, United States*

## TH.SEMIPLENARY-3
**16:00-16:45 (ROOM F)**
**Chair:** Dino Fiorani

16:00-16:45 **TH.SP-3 - High temperature nanostructured superconductors: a tool towards a new era of high field magnetism**
Xavier Obradors
*Institut de Ciència de Materials de Barcelona, ICMAB-CSIC, Barcelona, Spain*

## TH.A.3_SOFT AND HARD MAGNETIC MATERIALS
**17:15-18:15 (ROOM J)**
**Chair:** Kiyonori Suzuki

17:15-17:30 **TH.A.3_O1 - High coercivity in rare earth-lean hot-deformed magnets by grain boundary infiltration**
G. Hadjipanayis [1], R. Madugundo [1], D. Salazar Jaramillo [2], J.M. Barandiaran [2]
*1. Department of Physics and Astronomy, University of Delaware, Newark, United States*
*2. BCMaterials, Technology Park of Biscay, Derio, Spain*

17:30-17:45 **TH.A.3_O2 - Grain boundary modifications of hot-deformed Nd-Fe-B permanent magnets with low melting eutectics**

S. Sawatzki [1], C. Kübel [2], S. Ener [1], O. Gutfleisch [1,3]
*1. TU Darmstadt, Materialwissenschaft, Darmstadt, Germany*
*2. KIT, Institute of Nanotechnology (INT) & Karlsruhe Nano Micro Facility (KNMF), Eggenstein-Leopoldshafen, Germany*
*3. Fraunhofer IWKS, Projektgruppe für Wertstoffkreisläufe und Ressourcenstrategie, Hanau, Germany*

17:45-18:00 **TH.A.3_O3 - High-coercivity Nd-Fe-B permanent magnets based on the electrophoretic deposition of TbF3**

M. Soderžnik [1], K. Üestüener [2], M. Katter [2], S. Kobe [1]
*1. Jozef Stefan Institute, Ljubljana, Slovenia*
*2. Vacuumschmelze, Hanau, Germany*

18:00-18:15 **TH.A.3_O4 - Sintering analysis of NdFeB material**

B. Hugonnet [1], C. Rado [1], J.M. Missiaen [2,3], O. Tosoni [1], F. Servent [1]
*1. Univ. Grenoble Alpes, CEA, Grenoble, France*
*2. Univ. Grenoble Alpes, SIMAP, Grenoble, France*
*3. CNRS, SIMAP, Grenoble, France*

## TH.B.3_MATERIALS FOR ENERGY APPLICATIONS

**17:15-18:15 (ROOM F)**

**Chair:** Luis Morellon

17:15-17:30 **TH.B.3_O1 - Measurement of the Sommerfeld Coefficient in hydrogenated and Mn doped La(Fe,Si)13**

L.F. Cohen [1], L. Ghivelder [2], A. Nicotina [2], E. Lovell [1], Z. Gercsi [1], V. Basso [3], A. Barzca [4], M. Katter[4]
*1. Blackett Laboratory, Imperial College London, London, United Kingdom*
*2. Instituto de Física, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil*
*3. Istituto Nazionale di Ricerca Metrologica, Torino, Italy*
*4. Vacuumschmelze GmbH & Co. KG, Hanau, Germany*

17:30-17:45 **TH.B.3_O2 - Spin Seebeck and Anomalous Nernst Effect in magnetite epitaxial thin films grown on different substrates**

M.H. Aguirre [1,2,3], A. Anadón Barcelona [1,2], R. Ramos [1], I. Lucas [1,4], P. Algarabel [2,5], L. Morellón[1,2], R. Ibarra [1,2,3]
*1. Instituto de Nanociencia De Aragón. Universidad de Zaragoza. Zaragoza, Spain*
*2. Departamento de Física de la Materia Condensada, Universidad de Zaragoza, Zaragoza, Spain*
*3. Laboratorio de Microscopías Avanzadas, Universidad de Zaragoza, Zaragoza, Spain*
*4. Fundación ARAID, Zaragoza, Spain*
*5. Instituto de Ciencia de Materiales de Aragón, Universidad de Zaragoza and Consejo Superior de Investigaciones Científicas, Zaragoza, Spain*

17:45-18:00 **TH.B.3_O3 - Modeling specific heat and entropy change in La(Fe,Mn,Si)13-H compounds**

M. Piazzi [1], C. Bennati [1], C. Curcio [1], M. Kuepferling [1], V. Basso [1]
*1. Istituto Nazionale Di Ricerca Metrologica (INRIM), Turin, Italy*

18:00-18:15 **TH.B.3_O4 - Effect of irreversibility on the magnetocaloric effect of compounds with first-order transitions**

R. Burriel [1], E. Palacios [1]
*1. Instituto de Ciencia de Materiales de Aragón (ICMA), Zaragoza, Spain*

## TH.C.3_SUPERCONDUCTIVITY AND MAGNETISM, INCLUDING EXOTIC SUPERCONDUCTIVITY

**17:15-18:15 (ROOM H1)**

**Chair:** Leonardo Degiorgi

17:15-17:30 **TH.C.3_O1 - Evidence for nodal superconductivity in quasi-one-dimensional K2Cr3As3**

G. Pang [1], M. Smidman [1], W. Jiang [1], J. Bao [1], Z. Weng [1], Y. Wang [1], L. Jiao [1], J. Zhang [1], G. Cao [1], H. Yuan [1]
*1. Department Of Physics And Center For Correlated Matter, Zhejiang University, Hangzhou, China*

17:30-17:45 **TH.C.3_O2 - Unveiling the magnetic state of iron in the superconducting pressure region**

B. Lebert [1,2], J. Ablett [1], F. Baudelet [1], M. Casula [2], A. Juhin [2], G. Le Marchand [2], P. Munsch [2], A. Polian [2], J.P. Rueff [1], Z. Zhang [1,2]
*1. Synchrotron SOLEIL, L'Orme des Merisiers, Gif sur Yvette, France*
*2. Institut de Minéralogie et de Physique des Milieux Condensés (IMPMC), UMR CNRS 7590, Université Pierre et Marie, Paris, France*

17:45-18:00 **TH.C.3_O3 - Fermi-Surface Topology and Pairing Symmetry in BiS2-Based Layered Superconductors**

T. Hotta [1], T. Agatsuma [1]
*1. Department of Physics, Tokyo Metropolitan University, Hachioji, Japan*

18:00-18:15 **TH.C.3_O4 - First-order superconducting transition of Sr2RuO4 investigated by magnetization and magnetic torque**

S. Kittaka [1], A. Kasahara [1], T. Sakakibara [1], D. Shibata [2], S. Yonezawa [2], Y. Maeno [2], K. Tenya [3], K. Machida [4]
*1. University of Tokyo, Tokyo, Japan*
*2. Kyoto University, Kyoto, Japan*
*3. Shinshu University, Matsumoto, Japan*
*4. Okayama University, Okoyama, Japan*

## TH.D.3_HIGHLY FRUSTRATED MAGNETISM

**17:15-18:15 (ROOM H2)**

**Chair:** Ludovic Jaubert

17:15-17:30 **TH.D.3_O1 - A new spin-liquid antiferromagnet based on opposite-sign bi-triangles**

C. Balz [1,2], B. Lake [1,2], N. Islam [1], Y. Singh [1], S. Toth [3], J. Reuther [1,4], O. Prokhnenko [1], M. Reehuis[1], H. Ryll [1], R. Schoenemann [5], H. Luetkens [3], G. Simeoni [6], E. Wheeler [7], J. Rodriguez [8], T. Guidi [9]

*1. Helmholtz-Zentrum Berlin, Berlin, Germany*
*2. Technische Universität Berlin, Berlin, Germany*
*3. Paul Scherrer Institut, Villigen PSI, Switzerland*
4. Freie Universität Berlin, Berlin, Germany
*5. Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany*
*6. Technische Universität München, Munich, Germany*
*7. Institut Laue Langevin, Grenoble, France*
*8. NIST Center for Neutron Research, Gaithersburg, United States*
*9. ISIS Facility, Didcot, United Kingdom*

17:30-17:45 **TH.D.3_O2 - Interplay of disorder and frustration in the diamond spin lattice antiferromagnet CoAl2O4**

V. Kataev [1], M. Iakovleva [1,2], E. Vavilova [1,2], H.J. Grafe [1], S. Zimmermann [1,3], A. Alfonsov [1], H. Luetkens [4], H.H. Klauss [3], A. Maljuk [1], S. Wurmehl [1]

*1. Leibniz Institute For Solid State And Materials Research IFW Dresden, Dresden, Germany*
*2. Kazan E.K. Zavoisky Physical-Technical Institute of the Russian Academy of Sciences, Kazan, Russian Federation*
*3. Institute for Solid State Physics, Technical University Dresden, Dresden, Germany*
*4. Laboratory for Muon-Spin Spectroscopy Paul Scherrer Institut, Villigen PSI, Switzerland*

17:45-18:00 **TH.D.3_O3 - Neutron diffraction study of uniaxial pressure control of spin frustration in isosceles triangular lattice Ising antiferromagnet CoNb2O6**

S. Kobayashi [1], S. Hosaka [2], H. Tamatsukuri [2], T. Nakajima [2], S. Mitsuda [2], K. Prokes [3], K. Kiefer [3]

*1. Iwate University, Faculty Of Engineering, Iwate, Japan*
*2. Tokyo University of Science, Tokyo, Japan*
*3. Helmholtz-Zentrum Berlin, Berlin, Germany*

18:00-18:15

**TH.D.3_O4 - New investigation of the magnetization plateau phases in the frustrated antiferromagnet TbB4 by neutron diffraction in pulsed magnetic fields up to 40 T**

F. Duc [1], W. Knafo [1], J. Billette [1], X. Tonon [2], F. Bourdarot [3], E. LeliÞvre-berna [2], E. Lorenzo [4], P. Frings [1], L.P. Regnault [3], F. Iga [5], S. Michimura [6,7]

*1. Lab. National Des Champs Magnétiques Intenses, Toulouse, France*
*2. Institut Laue Langevin, Grenoble, France*
*3. Univ. Grenoble Alpes and CEA, INAC-SPSMS-MDN, Grenoble, France*
*4. Institut Néel, CNRS, Grenoble, France*
*5. College of Science, Ibaraki University, Mito, Japan*
*6. Research and Development Bureau*
*7. Graduate School of Science & Engineering, Saitama University, Saitama, Japan*

## TH.E.3_MAGNETIC NANOPARTICLES

**17:15-18:15 (ROOM H3)**

**Chair:** Sonia Estrade

17:15-17:30

**TH.E.3_O1 - A comparative measurement technique for magnetic hyperthermia in nanoparticle suspensions**

K. O'Grady [1,2], J. Zehner [1], F. Halpin [1], G. Vallejo-Fernández [1], J. Flatt [1], J. Timmis [2], V. Patel [2]

*1. Department of Physics, University of York, Heslington, York, United Kingdom*
*2. Liquids Research Ltd, Unit 9 Mentec, Gwynedd, United Kingdom*

17:30-17:45

**TH.E.3_O2 - Synthesis and unusual magnetic damping effect in silver-cobalt ferrite nanosystem**

S. Sharma [1], M. Knobel [1], K. Pirota [1], F. Beron [1], G. Zoppellaro [2], J. M. Vargas [3], D. Altbir [4]

*1. Instituto de Física Gleb Wataghin (IFGW), Universidade Estadual de Campinas (Unicamp), Campinas, Brazil*
*2. Regional Centre of Advanced Technologies and Materials, Faculty of Science, Olomouc, Czech Republic*
*3. Institute of Nanoscience and nanotechnology, Centro Atomico Bariloche, Bariloche, Argentina*
*4. Universidad de Santiago de Chile (United StatesCH), Santiago, Chile*

17:45-18:00

**TH.E.3_O3 - Adjustable magnetic properties of Fe3O4/ silicon nanocomposites with respect to biomedical applications**

P. Granitzer [1], K. Rumpf [1], P. Poelt [2], M. Reissner [3]

*1. Karl-Franzens-University Graz, Institute of Physics, Graz, Austria*
*2. University of Technology Graz, Institute for Electron Microscopy, Graz, Austria*
*3. Vienna University of Technology, Institute of Solid State Physics, Wien, Austria*

18:00-18:15 **TH.E3_O4 - Dipolar ferromagnetism of island-like agglomerates of Fe3O4 nanoparticles embedded in an epoxy matrix**

P. Allia [1], P. Tiberto [2], G. Barrera [3], F. Bondioli [4], C. Sciancalepore [5], M. Messori [5]
*1. Politecnico Di Torino, Torino, Italy*
*2. INRIM, Torino, Italy*
*3. Universitá di Torino , Torino, Italy*
*4. Universitá di Parma, Parma, Italy*
*5. Universitá di Modena e Reggio Emilia, Modena, Italy*

## TH.F.3_MEASURING TECHNIQUES AND INSTRUMENTATION

**17:15-18:15 (ROOM A)**

**Chair:** Tolek Tyliszczak

17:15-17:45 **TH.F.3_I1 - Advances in Magnetic Force Microscopy**

A. Asenjo [1], O. Iglesias-Freire [1], M. Jaafar [1], E. Berganza [1]
*1. Icmm-Csic, Madrid, Spain*

17:45-18:15 **TH.F.3_I2 - Spin Dynamics of Magnetic Skyrmions and Domain Walls due to spin – orbit effects**

M. Kläui [1]
*1. Institute of Physics, Johannes Gutenberg University Mainz, Mainz, Germany*

## TH.G.3_SPIN-ORBIT AND SPIN-LATTICE COUPLING

**17:15-18:15 (ROOM B1-B3)**

**Chair:** Jacob Torrejón

17:15-17:30 **TH.G.3_O1 - Spin-orbit-induced orbital excitations in Sr2RuO4 and Ca2RuO4: a resonant inelastic X-ray scattering study**

C.G. Fatuzzo [1], M. Dantz [2], S. Fatale [1], P. Olalde-Velasco [2], N. Shaik Bastien Dalla Piazza [1], S. Toth[3], J. Pellicciari [2], R. Fittipaldi Antonio Vecchione [4,5], N.Kikugawa [6,7] , J. S. Brooks [7]
*1. Institute for Condensed Matter Physics, EPFL, Switzerland*
*2. Swiss Light Source, Paul Scherrer Institut, Switzerland*
*3. Laboratory for Neutron Scattering and Imaging, Paul Scherrer Institut, Switzerland*
*4. CNR-SPIN, I-84084 Fisciano, Salerno, Italy*
*5. Dipartimento di Fisica "E.R. Caianiello", UniversitÓ di Salerno, Italy*
*6. National Institute for Materials Science, 1-2-1 Sengen, Tsukuba, Japan*
*7. National High Magnetic Field Laboratory, Tallahassee, United States*
*8. Institute for Solid State Physics (ISSP), University of Tokyo, Japan*
*9. Department of Quantum Matter Physics, University of Geneva, Switzerland*
*10. Physics Institute, University of Zurich (UZH), Switzerland*

17:30-17:45

**TH.G.3_O2 - Evidence for XY anisotropy in Sr2IrO4 as revealed by magnetic critical scattering**

J. Vale[1,2], S. Boseggia[1,3], H. Walker[4,5], R. Springell[6], Z. Feng[1], E. Hunter[7], R. Perry[1], D. Prabhakaran[8], A. Boothroyd[8], S. Collins [3], H. Ronnow [2,9], D. McMorrow [1]
*1. University College London, London, United Kingdom*
*2. Ecole Polytechnique Federale de LaUnited Statesnne, LaUnited Statesnne, Switzerland*
*3. Diamond Light Source, United Kingdom*
*4. PETRA III, DESY*
*5. ISIS Neutron and Muon Source*
*6. University of Bristol, Bristol, United Kingdom*
*7. University of Edinburgh, Edingburgh, United Kingdom*
*8. University of Oxford, Oxford, United Kingdom*
*9. Institute of Solid State Physics, University of Tokyo, Tokyo, Japan*

17:45-18:00

**TH.G.3_O3 - Orbital Magnetism and Spin-Orbit Effects in Iridium Oxides**

M. A. Laguna-Marco [1], P. Kayser [2], J. A. Alonso [2], Y. Choi [3], D. Haskel [3]
*1. ICMA and Dpto de Física de la Materia Condensada, CSIC-Universidad de Zaragoza, Zaragoza, Spain*
*2. Instituto de Ciencia de Materiales de Madrid, CSIC, Madrid, Spain*
*3. Advanced Photon Source, Argonne National Laboratory, Argonne, United States*

18:00-18:15

**Th.G.3_O4 - Orbital and magnetic orderings in half-doped manganites thin films: the crucial role of strain and bandwidth**

J. Fontcuberta[1]
*1. Institut de Ciencia de Materials de Barcelona (ICMAB-CSIC), Campus UAB, Bellaterra , Spain*

## TH.H.3_THIN FILM NANOSTRUCTURES

**17:15-18:15 (ROOM D1-D3)**

**Chair:** Norbert Nemes

17:15-17:45

**TH.H.3_I1 Spin-dependent thermoelectric phenomena in thin films of La2/3Sr1/3MnO3**

C. Bui[1], F. Rivadulla[1]
*1. Centro de Investigación en Química Biológica y Materiales Moleculares (CIQUS), Universidad de Santiago de Compostela, 15782-Santiago de Compostela, Spain.*

17:45-18:00

**TH.H.3_O2 - Switchable field-tuned control of magnetic domain wall pinning along Co microwires by 3D e-beam lithographed structures**

C. Blanco-Roldán [1,2], C. Quirós [1,2], G. Rodriguez-Rodriguez [3], M. Vélez [1,2], J. I. Martín [1,2], J. M. Alameda [1,2]
*1. Departamento de Física, Universidad de Oviedo, Oviedo, Spain*
*2. Centro de Investigación en Nanomateriales y Nanotecnología CINN (CSIC, Universidad de Oviedo), El Entrego, Spain*
*3. Madrid Institute for Advanced studies in Nanoscience (IMDEA nanoscience), Campus de Cantoblanco, Madrid, Spain*

18:00-18:15 **TH.H.3_O3 - Domain Wall Nanosensors Based on Ultra-thin CoFeB Films**

J. Wells [1], J. H. Lee [2], R. Mansell [2], R. Cowburn [2], O. Kazakova [1]
*1. National Physical Laboratory, Teddington, Middlesex, United Kingdom*
*2. Thin Film Magnetism, Department of Physics, University of Cambridge, Cambridge, United Kingdom*

## TH.I.3_ARRAYS OF MAGNETIC NANOSTRUCTURES

**17:15-18:30 (ROOM D4-D6)**

**Chair:** Cristina Gómez Polo

17:15-17:30 **TH.I.3_O1 - Self-assembled magnetic nanodot arrays growing on diblock copolymer templates: An in-situ study combining GISAXS and NRS.**

D.Erb [2], K. Schlage [1], R. Röhlsberger [1]
*1. Deutsches Elektronen-Synchrotron DESY, Hamburg, Germany*
*2. University of Hamburg. Hamburg, Germany*

17:30-17:45 **TH.I.3_O2 - Magnetic antidot to dot transition in Co/Pd nanopatterned thin films with perpendicular magnetic anisotropy**

M. Krupinski [1], A. Zarzycki [1], A. Szkudlarek [2], M. Giersig [3], M. Marszalek [1]
*1. Institute Of Nuclear Physics Polish Academy Of Sciences, Kraków, Poland*
*2. Academic Centre for Materials and Nanotechnology, AGH University of Science and Technology, Kraków, Poland*
*3. Department of Physics, Freie Universitat Berlin, Berlin, Germany*

17:45-18:00 **TH.I.3_O3 - Anisotropy and dipolar interactions in an ultra-dense array of single-crystalline cobalt nanowires**

T. Blon [1], N. Liakakos [1], C. Achkar [1], I. Camara [2], M. Bailleul [2], V. Pierron-Bohnes [2], Y. Henry [2], B. Chaudret [1], M. Respaud [1], K. Soulantica [1]
*1. Laboratoire de Physique et Chimie des Nano-objets, INSA, Toulouse, France*
*2. IPCMS, UMR7504 CNRS-Université de Strasbourg, Strasbourg, France*

18:00-18:15 **TH.I.3_O4 - Reversal mechanism, switching field distribution and dipolar frustrations in Co/Pt bit pattern media based on AAO auto-assembled hexagonal array of nanobumps**

T. Hauet [1], L. Piraux [2], S. K. Srivastava [2], V. A. Antohe [2], D. Lacour [1], M. Hehn [1], F. Montaigne [1], J. Schwenk [3], M. A. Marioni [3], H. J. Hug [4]
*1. Institut Jean Lamour, Lorraine, France*
*2. Institute of Condensed Matter and Nanosciences, Belgium*
*3. Empa, Dübendorf, Switzerland*
*4. Institute of Physics, Universität Basel, Switzerland*
*5. CIC nanoGUNE, Gipúzcoa, Spain*

18:15-18:30 **TH.I.3_O5 - Magnetotransport in La(2/3)Ca(1/3)MnO(3) thin films with on-surface deposited Py nanostructures**

W. Yanez [1], V. Vlaminck [1], J. Hoffman [2], A. Hoffmann [2], D. Niebieskikwiat [1]
*1. Universidad San Francisco de Quito, Quito, Ecuador*
*2. Argonne National Laboratory, Argonne, United States*

## TH.J.3_THEORY AND MODELLING

**17:15-18:15 (ROOM E1-E3)**

**Chair:** Pedro Landeros

17:15-17:45 **TH.J.3_I1 - Anatomy of Dzyaloshinskii-Moriya Interaction at Co/Pt Interfaces**

H. Yang [1], A. Thiaville [2], S. Rohart [2], A. Fert [3], M. Chshiev [1]
*1. Univ. Grenoble Alpes, INAC-SPINTEC, Grenoble, France; CNRS, SPINTEC, Grenoble, France; And CEA, INAC-SPINTEC, Grenoble, France*
*2. Laboratoire de Physique des Solides, Univ. Paris-Sud, Orsay , France*
*3. Unité Mixte de Physique CNRS/Thales, Palaiseau, France and Univ. Paris-Sud, Orsay, France*

17:45-18:00 **TH.J.3_O2 - Thermodynamic Properties of Pr1-xDyxCoO3 Perovskite**

N.K. Gaur [1], R. Thakur [1]
*1. Barkatullah University, Bhopal, Madhya Pradesh, India*

18:00-18:15 **TH.J.3_O3 - Stoner Magnetism in an Inversion Layer**

D. Golosov [1]
*1. Dept. of Physics and the Resnick Institute, Bar-Ilan University, Ramat Gan, Israel*

# FRIDAY, 10 JULY

## PLENARY-5

**12:30-13:30 (AUDITORIUM)**

**Chair:** Axel Hoffmann

12:30-13:30 **PLENARY 5 - Magnetic Materials for Green Technologies**

Oliver Gutfleisch
*Technical University of Darmstadt, Darmstadt, Germany*

## FR.A.1_SOFT AND HARD MAGNETIC MATERIALS

**09:00-10:30 (ROOM J)**

**Chair:** Nicoletta Lupu

09:00-09:30 **FR.A.1_I1 - Magnetic Properties of FeCo2B and the effect of doping by 5d elements**

A. Edström [1], M. Werwinski [1], J. Rusz [1], O. Eriksson [1], K.P. Skokov [2], I.A. Radulov [2], S. Ener [2], M. D. Kuz'min [2], J. Hong [2], M. Fries [2]
*1. Uppsala University, Uppsala, Sweden*
*2. Technische Universität Darmstadt, Darmstadt, Germany*
*3. Vienna University of Technology, Wien, Austria*

09:30-09:45 **FR.A.1_O2 - Magnetic field effects on reaction-sintering of MnBi**

Y. Mitsui [1], K. Abemstsu [1], R.Y. Umetsu [2], K. Takahashi [2], K. Koyama [1]
*1. Graduate School Of Science And Engineering, Kagoshima University, Kagoshima, Japan*
*2. Institute for Materials Research, Tohoku University, Miyagi, Japan*

09:45-10:00 **FR.A.1_O3 - The Importance of Strong Electronic Correlations in Rare-Earth Free Hard Magnets**

F. Ronning [1], J. Zhu [1], M.Janoschek [1], R. Rosenberg [2], J. Criginski Cezar [3], E. Bauer [1], C. Batista[1], J.Thompson [1]
*1. Los Alamos National Laboratory, United States*
*2. Advanced Photon Source, Argonne National Laboratory, United States*
*3. Laboratório Nacional de Luz Síncrotron, Brasil*

10:00-10:15 **FR.A.1_O4 - BH enhancement in SrFe12O19 hybrid nanocomposites**

A.M. Aragón [1], A. Quesada [2], A. Bollero [3], S. Deledda [4], J.F. Fernández [2], A. Hernando [1], P. Marín[1]
*1. Instituto De Magnetismo Aplicado (UCM-ADIF), Las Rozas, Madrid, Spain*
*2. Instituto de Cerámica y Vidrio, CSIC, Madrid, Spain*
*3. IMDEA Nanoscience, Madrid, Spain*
*4. Institute for Energy Technology, Kjeller, Norway*

10:15-10:30 **FR.A.1_O5 - Magnetism of ferromagnetic bulk MnBi phases made from MnBi nanoparticles**

E. Skoropata [1,2], J. Freeland [3], M. Rowe [2], J. van Lierop [1]
*1. University Of Manitoba, Winnipeg, Canada*
*2. Toyota Research Institute of North America, Chicago, United States*
*3. Argonne National Laboratory, Lemont, United States*

## FR.B.1_MAGNETIC NANOPARTICLES

**09:00-10:30 (ROOM F)**

**Chair:** Francisco Bonilla

09:00-09:30 **FR.B.1_I1 - Size-induced enhanced magnetoelectric effect in chromium oxide nanoclusters**

D. Halley [1], N. Najjari [1], L. Joly [1], B. Doudin [1], Y. Henry [1]
*1. CNRS/Université de Strasbourg, Strasbourg, France*

09:30-09:45 **FR.B.1_O2 - Relationship between the verwey temperature and the particle size in magnetite nanoparticles**

L. Marcano [1], D. Muñoz Rodríguez [2], A. Muela [2,3], A. García Prieto [3,4], J. Alonso [3,5], L. Fernández Barquín [6], M.L. Fdez-Gubieda [1,3]
*1. Universidad Del País Vasco (UPV/EHU), Spain*
*2. Departamento de Inmunología, Microbiología y Parasitología, Universidad Del País Vasco (UPV/EHU), Spain*
*3. BCMaterials, Building N0.500, Technological Park of Biscay, Derio, Spain*
*4. Departamento de Física Aplicada I, Universidad Del País Vasco (UPV/EHU), Spain*
*5. Department of Physics, University of South Florida, Tampa, United States*
*6. Departamento CITIMAC, F. Ciencias, Universidad de Cantabria, Santander, Spain*

09:45-10:00 **FR.B.1_O3 - Core/shell magnetism in NiO nanoparticles**

A. Ionescu [1], J.F.K. Cooper [1], R.M. Langford [1], K. R.A. Ziebeck [1], C. H.W. Barnes [1], R. Gruar [2], C. Tighe [2], J. A. Darr [2], N.T.K. Thanh [3], B. Ouladdiaf [4]
*1. Cavendish Laboratory, University of Cambridge, Cambridge, United Kingdom*
*2. Chemistry Department, University College London, United Kingdom*
*3. Davy-Faraday Research Laboratory, Royal Institution of Great Britain, London, United Kingdom*
*4. Institut Laue-Langevin, Grenoble, France*

10:00-10:15 **FR.B.1_O4 - Interplay between microstructure and magnetism in transition metal oxide nanoparticles: towards the breakdown of the antiferromagnetic order**

N. Rinaldi-Montes [1], P. Gorria [1], D. Martínez-Blanco [2], A. B. Fuertes [3], I. Puente-Orench [4], J.A. Blanco [1]
*1. Departamento de Física, Universidad de Oviedo, Oviedo, Spain*
*2. Servicios Científico-Técnicos, Universidad de Oviedo, Oviedo, Spain*
*3. Instituto Nacional del Carbón, CSIC, Oviedo, Spain*
*4. Instituto de Ciencia de Materiales de Aragón, CSIC-Universidad de Zaragoza and Institut Laue-Langevin, Grenoble, France*

10:15-10:30

**FR.B.1_O5 - Sorption study water contaminants by magnetic nanoparticles: A theoretical approach based on DFT calculations**

S. Baltazar [1], M. Salgado [1]

*1. Departamento de Física, CEDENNA, Universidad de Santiago de Chile, Santiago de Chile, Chile*

## FR.C.1_TOPOLOGICAL INSULATORS AND METAL INSULATOR TRANSITIONS

**09:00-10:30 (ROOM H1)**

**Chair:** Hertmann Sudrow

09:00-09:15

**FR.C.1_O1 - Topological Surface States and Double Berry Monopoles in the Heavy Fermion Superconductor UPt3**

A. Nevidomskyy [1], P. Goswami [2]

*1. Department of Physics and Astronomy, Rice University, United States*

*2. Condensed Matter Theory Center, University of Maryland, United States*

09:15-09:30

**FR.C.1_O2 - Superconductivity and antiferromagnetism in the half-Heusler compound HoPdBi**

A. Nikitin [1], X. Mao [1,2], Y. Pan [1], Y. Huang [1],B. Yan [3], A. de Visser [1]

*1. Van der Waals - Zeeman Institute, University of Amsterdam, Amsterdam, The Netherlands*

*2. Jimei University, Xiamen, China*

*3. Max-Planck-Institut für Chemische Physik fester Stoffe, Dresden, Germany*

09:30-09:45

**FR.C.1_O3 - Linear magnetoresistance, weak antilocalization and Shubnikov-de Haas oscillations in the putative topological superconductor LuPdBi**

O. Pavlosiuk [1], D. Kaczorowski [1], P. Wisniewski [1]

*1. Institute Of Low Temperature And Structure Research, Polish Academy Of Sciences, Poland*

09:45-10:00

**FR.C.1_O4 - Discovery of superconductivity in Bi2Te: evidence of universal behavior in an infinitely adaptive series under compression**

R. Stillwell [1], J. Jeffries [1], S. McCall [1], Z. Jenei [1], S. Weir [1], Y. Vohra [2]

*1. Lawrence Livermore National Laboratory, Livermore, United States*

*2. University of Alabama at Birmingham, Alabama, United States*

10:00-10:15 **FR.C.1_O5 - Quantum oscillations in high magnetic fields, Berry phase, quantum Hall effect and superconductivity in Cu-doped bismute selenide single crystals**

S. I. Vedeneev [1], T. Romanova [1,2], D. Knyazev [1,2], A. Sadakov [1,2]
*1. Lebedev Physical Institute of Russian Academy Of Science, Moscow, Russian Federation*
*2. International Laboratory of High Magnetic Fields and Low Temperatures, Wroclaw, Poland*

10:15-10:30 **FR.C.1_O6 - Surface damage of SmB_6 through ion-irradiation**

N. Wakeham [1], Y. Wang [1], Z. Fisk [2], F. Ronning [1], J. Thompson [1]
*1. Los Alamos National Laboratory, New Mexico, United States*
*2. University of California, Irvine, California, United States*

## FR.D.1_HIGHLY FRUSTRATED MAGNETISM

**09:00-10:30 (ROOM H2)**

**Chair:** David Laroze

09:00-09:30 **FR.D.1_I1 - The AC Wien effect and non-linear non-equilibrium susceptibility in spin ice.**

P. Holdsworth [1], V. Kaiser [1,3], S. Bramwell [2], R. Moessner[3]
*1. Ecole Normale Supèrieure De Lyon, Lyon, France*
*2. London Centre for Nanotechnology, UCL, London, United Kingdom*
*3. Max Planck, Dresden, MPIPKS, Germany*

09:30-09:45 **FR.D.1_O2 - Magnetoelectricity of the spin-ice compound Ho2Ti2O7**

T. Herrmannsdörfer [1], R. Schönemann [1,2], E. Green [1], L. Opherden [1,2], R. Skrotzki [1,2], Z. Wang [1], H. Kaneko [3], H. Suzuki [3], J. Wosnitza [1,2]
*1. Dresden High Magnetic Field Laboratory (HLD-EMFL), Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany*
*2. Institut für Festkörperphysik, TU Dresden, Dresden, Germany*
*3. Faculty of Mathematics and Physics, Kanazawa University, Kanazawa, Japan*

09:45-10:00 **FR.D.1_O3 - Magnetic charge crystal phase embedded in a disordered spin lattice in thermally-active artificial spin ice**

I. Chioar [1,2], Benjamin Canals [1,2], D. Lacour [3], M. Hehn [3], B. Santos Burgos [4], T. O. Mentes [4], A. Locatelli [4], F. Montaigne [3], N. Rougemaille [1,2]
*1. CNRS, Institut NEEL, Grenoble, France*
*2. Université Grenoble Alpes, Institut NEEL, Grenoble, France*
*3. Institut Jean Lamour, Université de Lorraine and CNRS, Vandoeuvre les Nancy, France*
*4. Elettra - Sincrotrone Trieste S.C.p.A., S.S, Basovizza, Trieste, Italy*

10:00-10:15 **FR.D.1_O4 - Magnetic crystallography and 'jellyfish' structure of monopoles in spin ice**

L. Jaubert [1], M. Udagawa [2], C. Castelnovo [3], R. Moessner [4]
*1. Okinawa Institute Of Science And Technology, Japan*
*2. University of Tokyo, Japan*
*3. University of Cambridge, United Kingdom*
*4. MPI-PkS Dresden, Germany*

10:15-10:30 **FR.D.1_O5 - Magnetic phases up to 120 T in a triangular-lattice antiferromagnet CuCrO2**

A. Miyata [1], K. Ohgushi [1], S. Takeyama[1]
*1. ISSP, Univ. of Tokyo, Tokyo, Japan*

## FR.E.1_MEASURING TECHNIQUES AND INSTRUMENTATION

**09:00-10:30 (ROOM H3)**

**Chair:** Michael Foerster

09:00-09:30 **FR.E.1_I1 - Electron Holography and Lorentz microscopy for quantitative measurements of local magnetic properties and in-situ experiments**

E. Snoeck [1,2,4], C. Gatel [1,4], Cesar Magen [2,4], Aurelien Maseboeuf [1,4], Luis Alfredo Rodriguez [1,2,4], Thomas Blon [3,4], Lise Marie Lacroix [3,4], Francisco Bonnilla [3,4]
*1. CEMES-CNRS 29, Toulouse, France*
*2. Laboratorio de Microscopias Avanzadas (LMA), Instituto de Nanociencia de Aragón (INA), Universidad de Zaragoza, Zaragoza, Spain*
*3. LPCNO-INSA, Av de Rangueil , Toulouse, France*
*4. Transpyrenean Associated Laboratory for Electron Microscopy (TALEM), CEMES-INA, CNRS-Universidad de Zaragoza, Zaragoza, Spain*

09:30-09:45 **FR.E.1_O2 - Scanning gate microscopy of domain wall nanosensor**

H. Corte-León [1,2], P. Krzysteczko [3], F. Marchi [4], J. Motte [4], H. Werner Schumacher [3], V. Antonov[2], N. Dempsey [4], O. Kazakova [1]
*1. National Physical Laboratory, Teddington, United Kingdom*
*2. Royal Holloway University of London, Egham, United Kingdom*
*3. Physikalisch-Technische Bundesanstalt, Braunschweig, Germany*
*4. Univ. Grenoble Alpes, Inst. NEEL, Grenoble, France*

09:45-10:00 **FR.E.1_O3 - Domain wall pinning in cylindrical nanowires**

I. Ivanov [1], A. Chuvilin [2], J. Kosel [1]
*1. King Abdullah University Of Science And Technology (KAUST), Thuwal, Saudi Arabia*
*2. CIC nanoGUNE Consolider, San Sebastian, Spain*
*King Abdullah University Of Science And Technology (KAUST), THUWAL, SAUDI ARABIA*

10:00-10:15 **FR.E.1_O4 - Mechanomagnetic spectroscopy: an ultrasonic method to study magnetostriction**

S. Kustov [1,2], M. Ll. Corró Moyà [1]
*1. Departament De Física, Universitat De Les Illes Balears, Palma, Spain*
*2. ITMO University, St. Petersburg, Russian Federation*

10:15-10:30 **FR.E.1_O5 - Imaging magnetic domain patterns in 3D curved surfaces**

R. Streubel [1], F. Kronast [2], P. Fischer [3,4], O. G. Schmidt [1,5], D. Makarov [1]
*1. Institute for Integrative Nanosciences, IFW Dresden, Germany*
*2. Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Germany*
*3. Center for X-ray Optics, Lawrence Berkeley National Laboratory, CA, United States*
*4. Physics Department, UC Santa Cruz, CA, United States*
*5. Material Systems for Nanoelectronics, Chemnitz University of Technology, Germany*

## FR.F.1_MAGNETISM THEORY AND SIMULATION OF QUANTUM AND CLASSICAL SYSTEMS

**09:00-10:30 (ROOM A)**

**Chair:** Leonard Spinu

09:00-09:30 **FR.F.1_I1 - Designer Nanomagnets**

J. Rossier [1]
*1. Inl, Braga, Portugal*

09:30-09:45 **FR.F.1_O2 - Strange correlations in symmetry protected topological phases**

P. Sengupta [1], K. Wierschem [2]
*1. Nanyang Technological University, Singapore*
*2. National Taiwan University, Taiwan*

09:45-10:00 **FR.F.1_O3 - Electronic properties of transition metal atoms on Cu2 N/Cu(100): a comparative study**

A. Ferrón [1], J.L. Lado [1], J. Fernández-Rossier[1]
*1. International Iberian Nanotechnology Laboratory, Braga, Portugal*

10:00-10:15 **FR.F.1_O4 - Magnetism in rare earth quasicrystals: RKKY interactions and ordering**

S. Thiem
*1. University of Oxford, Oxford, United Kingdom*

10:15-10:30 **FR.F.1_O5 - Spin and orbital contributions to relativistic magnetic interactions in strongly correlated systems**

A. Secchi [1], A.I. Lichtenstein[2], M.I. Katsnelson[1]
*1. Radboud University Nijmegen, Institute For Molecules And Materials, Nijmegen, Netherlands*
*2. Universitat hamburg, Institut für Theoretische Physik, Hamburg, Germany*

## FR.G.1_SPIN WAVE DYNAMICS AND MAGNONICS

**09:00-10:30 (ROOM B1-B3)**

**Chair:** Paolo Vavassori

09:00-09:30

**FR.G.1_I1 - Spin-transfer torque for nano-magnonics**

S. Demokritov [1], V. Demidov[1], S. Urazhdin [2]

*1. University of Muenster, Germany*

*2. Emory University, Atlanta, GA, United States*

09:30-09:45

**FR.G.1_O2 Unidirectional spin-wave edge modes in perpendicularly magnetized permalloy structures**

B. Leven [1], F. Ciubotaru [1], A. V. Chumak [1], V. I. Vasyuchka [1], A. A. Serga [1], B. Hillebrands [1]

*1. Fachbereich Physik And Forschungszentrum Optimas, TU Kaiserslautern, Germany*

09:45-10:00

**FR.G.1_O3 - Direct Microscopic Observation of Spin Wave Modes in Nanoscaled Antidot Lattices**

J. Gräfe [1], A. Gangwar [2], M. Noske [1], H. Stoll [1], C. H. Back [2], G. Schütz [1], E. J. Goering [1]

*1. Max Planck Institute For Intelligent Systems, Stuttgart, Germany*

*2. Department of Physics, University of Regensburg, Regensburg, Germany*

10:00-10:15

**FR.G.1_O4 - Towards graded-index magnonics: Steering spin waves in magnonic networks**

C. Davies [1], A. Francis [1], A. Sadovnikov [2], S. Chertopalov [3], M. Bryan [4], S. Grishin [2], D. Allwood [4], S. Nikitov [5], Y. Sharaevskii [2], V. Kruglyak [1]

*1. University Of Exeter, Devon, United Kingdom*

*2. Saratov State University, Saratov, Russian Federation*

*3. Donetsk National University, Donetsk, Ucrania*

*4. University of Sheffield, Sheffield, United Kingdom*

*5. Kotel'nikov Institute of Radioengineering and Electronics, Moscow, Russian Federation*

10:15-10:30

**FR.G.1_O5 - Effective way of spin-wave excitation in YIG-Pt structures**

A. Serga [1], M. Agrawal [1], V. Vasyuchka [1], B. Hillebrands [1]

*1. Department of Physics and State Research Center OPTIMAS, University of Kaiserslautern, Kaiserslautern, Germany*

## FR.H.1_NON-FERMI LIQUIDS AND QUANTUM CRITICALITY

**09:00-10:30 (ROOM D1-D3)**

**Chair:** Georg Knebel

09:00-09:30

**FR.H.1_I1 - Multiple quantum critical points in a cubic heavy fermion system**

S. Paschen [1]

*1. Vienna University of Technology, Wien, Austria*

09:30-09:45 **FR.H.1_O2 - Frustrated magnetism in Yb2Fe12P7**

K. Grube [1], S. Zaum [1,2], P. Schweiss [1], J. J. Hamlin [3], I. K. Lum [3], D. A. Zocco [1,3], R. E. Bumbach [3], M. B. Maple [3], H. v. Löhneysen [1,2]
*1. Karlsruher Institut für Technologie, Institut für Festkörperphysik, Karlsruhe, Germany*
*2. Karlsruher Institut für Technologie, Physikalisches Institut, Karlsruhe, Germany*
*3. Department of Physics, University of California, San Diego, La Jolla, California, United States*

09:45-10:00 **FR.H.1_O3 - Thermodynamic singularities in the anisotropic stress Grüneisen ratios of quantum critical CeCu5.9Au0.1**

K. Grube [1], S. Zaum [1,2], O. Stockert [3], Q. Si [4], H. v. Löhneysen [1,2]
*1. Karlsruher Institut Für Technologie, Institut Für Festkörperphysik, Karlsruhe, Germany*
*2. Physikalisches Institut, Karlsruher Institut für Technologie, Karlsruhe, Germany*
*3. Max-Planck-Institut für Chemische Physik fester Stoffe, Dresden, Germany*
*4. Department of Physics and Astronomy, Rice University, Houston, United States*

10:00-10:15 **FR.H.1_O4 - Non-Fermi Liquid Behaviors and Distinct Metal Insulator Transitions in Perovskite SrIrO3 Epitaxial Films**

Y. H Jeong [1], Y, A. Biswas [1]
*1. Dept of Physics, POSTECH, Pohang, Republic of Korea*

10:15-10:30 **FR.H.1_O5 - On the superconducting instabilities of metals near quantum critical points**

S. Raghu [1]
*1. Stanford University, California, United States*

## FR.I.1_VORTEX AND SKYRMION DYNAMICS

**09:00-10:30 (ROOM D4-D6)**

**Chair:** Yoshishige Suzuki

09:00-09:30 **FR.I.1_I1 - Dynamics and inertia of skyrmionic spin structures**

C. Moutafis [1,2], F.Büttner [3], A. Bisig [3,4], B. Krueger [3], C. A.F. Vaz [2], P. Warnicke [2], M.Foerster [3], M.Mawass [3], M. Scheneider [5], C. Günter [5]
*1. School of Computer Science, University Of Manchester, United Kingdom*
*2. Paul Scherrer Institute, Villigen, Switzerland*
*3. Institute of Physics, Johannes Gutenberg Universität Mainz, Mainz, Germany, Universität Konstanz, Konstanz, Germany*
*5. Institut Für Optik Und Atomare Physik, Technische Universität Berlin, Berlin, Germany*

*6. Helmholtz Zentrum Berlin Für Materialien Und Energie GmbH, Berlin, Germany*
*7. Max Planck Institute For Intelligent Systems, Stuttgart, Germany*
*8. Department of Applied Physics, Center For NanoMaterials, Eindhoven University of Technology, Eindhoven, Netherlands*

09:30-09:45 **FR.I.1_O2 - High-frequency dynamic modes of a magnetic antivortex**
K. Buchanan [1], G. Riley [1], J. Liu [1], A. Haldar [1], M. Asmat-Uceda [1]
*1. Colorado State University, Colorado, United States*

09:45-10:00 **FR.I.1_O3 - Studies of Dynamic Spin Fluctuations and the Static Order Parameter of Skyrmion Systems**
L. Liu [1], S. Cheung [1], T. Goko [1,2], B. Frandsen [1], E. Morenzoni [2], S. Dunsiger [3], P. Boeni [3], G. Luke[4], C. Jin [5], A. Fujimori [6]

10:00-10:30 **FR.I.1_I4 - Low-frequency magnetization dynamics of vortex dot arrays**
K. Gusliyenko [1,2], O. Sukhostavets [1]
*1. Depto. Física De Materiales, Universidad Del País Vasco, UPV/EHU, San Sebastián, Spain*
*2. IKERBASQUE, the Basque Foundation for Science, Bilbao, Spain*

## FR.J.1_THEORY OF STRONGLY CORRELATED MATTER

**09:00-10:30 (ROOM E1-E3)**

**Chair:** Josef Spalek

09:00-09:30 **FR.J.1_I1 - Quantum Criticality and Emergence of the T /B Scaling in Strongly Correlated Metals**
Shinji Watanabe [1], Kazumasa Miyake [2]
*1. Kyushu Institute of Technology,* Fukuoka, *Japan*
*2. Toyota Physical and Chemical Research Institute Nagakute, Japan*

09:30-09:45 **FR.J.1_O2 - Electronic correlations in Hund metals**
E. Bascones [1], L. Fanfarillo [1]
*1. Instituto De Ciencia De Materiales De Madrid (ICMM-CSIC), Madrid, Spain*

09:45-10:00 **FR.J.1_O3 - Competition between Hund's coupling and Kondo effect in an extended one-dimensional periodic Anderson model**
I. Hagymasi [1], J. Solyom [1], O. Legeza [1]
*1. Wigner Research Centre For Physics, Budapest, Hungary*

10:00-10:30 **FR.J.1_I4 - Non-local correlations beyond DMFT and (quantum) criticality**
K. Held [1]
*1. Vienna University Of Technology, Wien, Austria*

## FR.A.2_SOFT AND HARD MAGNETIC MATERIALS

**11:00-12:30 (ROOM J)**

**Chair:** Volker Neu

11:00-11:30 **FR.A.2_I1 - Micromagnetics of rare-earth efficient permanent magnets?**

T. Schrefl [1, 2, 3, 4, 5]
*1. Center For Integrated Sensor Systems, Danube University Krems, Austria*
*2. St. Poelten University of Applied Sciences, St. Poelten, Austria*
*3. Universität Duisburg-Essen, Duisburg, Germany*
*4. Technische Universität Darmstadt, Darmstadt, Germany*
*5. Toyota Motor Corp., Toyota City, Japan*

11:30-11:45 **FR.A.2_O2 - Micromagnetic simulation of the effect of microstructure on the coercivity of Dy-diffused Nd-Fe-B sintered magnets**

M. Yi [1,2], O. Gutfleisch [1], B. Xu [1]
*1. Technische Universität Darmstadt, Hessen, Germany*
*2. Beihang University (BUAA), Beijing, China*

11:45-12:00 **FR.A.2_O3 - Optimization of permanent magnets performance by means of micromagnetic modelling**

D. Berkov [1], S. Erokhin [1]
*1. General Numerics Research Lab E.V., Jena, Germany*

12:00-12:15 **FR.A.2_O4 - First-principles study of the effect of Cu and NdOx in Nd2Fe14B magnets**

Y. Tatetsu [1], T. Ozaki [2], S. Tsuneyuki [1,2], Y. Gohda [1,3]
*1. ESICMM, Department of Physics, The University of Tokyo, Tokyo, Japan*
*2. Institute for Solid State Physics, The University of Tokyo, Tokyo, Japan*
*3. Department of Materials Science and Engineering, Tokyo Institute of Technology, Tokyo, Japan*

12:15-12:30 **FR.A.2_O5 - Molecular field and CEF single ion calculation of the finite temperature intrinsic magnetic properties of R2M14B intermetallic compounds (R=rare earth, M= Fe, Co)**

M. Ito [1,2], M. Yano [2], N. M. Dempsey [1], D. Givord [1,3]
*1. CNRS/Université Grenoble-Alpes, Institut Néel, Grenoble, France*
*2. Advanced Material Engineering Div., Toyota Motor Corporation*
*3. Instituto de Fisica, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil*

## FR.B.2_SUPERCONDUCTIVITY AND MAGNETISM, INCLUDING EXOTIC SUPERCONDUCTIVITY

**11:00-12:30 (ROOM F)**

**Chair:** Koichi Izawa

11:00-11:15

**FR.B.2_O1 –Element specific magnetic depth profiles of YBa2Cu3O7/La0.7Ca0.7MnO3 superlattices using X-ray resonant magnetic reflectometry**

A. Alberca
*1. Swiss Light Source, Paul Scherrer Institut, Villigen, Switzerland*

11:15-11:30

**FR.B.2_O2 - Study of strong electronic correlations and superconductivity for KFe2As2 under pressure and for intercalated FeSe**

H. O. Jeschke [1], D. Guterding [1], S. Backes [1], R. Valenti [1]
*1. Goethe-Universität Frankfurt, Frankfurt, Germany*

11:30-11:45

**FR.B.2_O3 - Persistence of high-energy spin fluctuations in electron doped NaFeAs**

J. Pelliciari [1], Y. Huang [1,2], M. Dantz [1], V. Bisogni [1], P. Olalde Velasco [1], C. Q. Jin [2], T. Schmitt [1]
*1. Swiss Light Source, Paul Scherrer Institute, Villigen, Switzerland*
*2. Institute of Physics Chinese Academy of Science, Beijing, China*

11:45-12:00

**FR.B.2_O4 - Static Magnetic Order in Overdoped NaFe1-xCuxAs Indicating a Mott Transition**

S. Cheung [1], B. Frandsen [1], L. Liu [1], D. Wang [1,2], Y. Uemura [1], A. Hallas [3], A. Millington [3], T. Munsie [3], M. Wilson [3], G. Luke [3]
*1. Department of Physics, Columbia University, New York, New York, United States*
*2. Department of Applied Physics and Applied Mathematics, Columbia University, New York, New York, United States*
*3. Department of Physics and Astronomy, McMaster University, Hamilton, Ontario, Canada*
*4. Beijing National Laboratory for Condensed Matter Physics and Institute of Physics, Chinese Academy of Sciences, Beijing, China*
*5. Department of Physics, Zhejiang University, Hangzhou, China*
*6. Department of Physics, University of Tokyo, Bunkyo-ku, Tokyo, Japan*

12:00-12:15

**FR.B.2_O5 - Successive AF-SC-AF phase transition and the quantum criticality in LaFeAsO1-xHx studied by nuclear magnetic resonance**

N. Fujiwara [1], N. Kawaguchi [1], Y. Yamakawa [2], H. Kontani [2], S. Iimura [3], S. Matsuishi [3], H. Hosono[3]
*1. Kyoto University, Kyoto, Japan*
*2. Nagoya University, Nagoya, Japan*
*3. Tokyo Institute of Technology, Tokyo, Japan*

12:15-12:30 **Fr.B.2_O6 - Microscopic coexistence of magnetism and superconductivity in Ca1-xNaxFe2As2**

H. Klauss [1], P. Materne [1], S. Kamusella [1], R. Sarkar [1], T. Goltz [1], H. Luetkens [2], L. Harnagea [3], S. Wurmehl [3], B. Büchner [3], C. Timm [4]
*1. TU Dresden, Institute of Solid State Physics, Dresden, Germany*
*2. Laboratory for Muon Spin Spectroscopy, Paul-Scherrer-Institut,Villigen PSI, Switzerland*
*3. IFW Dresden, Dresden, Germany*
*4. TU Dresden, Institute of Theoretical Physics, Dresden, Germany*

## FR.C.2_TOPOLOGICAL INSULATORS AND METAL INSULATOR TRANSITIONS

**11:00-12:30 (ROOM H1)**

**Chair:** Piotr Wisniewski

11:00-11:30 **FR.C.2_I1 - KONDO INSULATORS: Magnetism meets topology.**

P. Coleman [1,2], O. Erten [1]
*1. Center For Materials Theory, Dept Physics And Astronomy, Rutgers University, United States*
*2. Department of Physics, Royal Holloway, University of London, Egham, Surrey, United Kingdom*

11:30-11:45 **FR.C.2_O2 - Fermi surface of pressure metallised Mott insulator NiS2**

S. Friedemann [1], H. Chang [2,] M. Gamza [3,4], W. Coniglio [5], S. Tozer [5], M. Grosche [2]
*1. HH Wills Laboratory, University Of Bristol, United Kingdom*
*2. Cavendish Laborotry, University of Cambridge, United Kingdom*
*3. Royal Holloway University of London, United Kingdom*
*4. Jeremiah Horrocks Institute for Mathematics, Physics and Astrophysics, University of Central Lancashire, Preston, United Kingdom*
*5. National High Magnetic Field Laboratory, Tallahassee, United States*

11:45-12:00 **FR.C.2_O3 - Pressure effect on the ferromagnetic-metal to ferromagnetic-insulator transition in K2Cr8O16**

Y. Ueda [1], T. Yamauchi [2]
*1. Toyota Physical And Chemical Research Institute, Nagakute, Japan*
*2. Institute for Solid State Physics, University of Tokyo, Tokyo, Japan*

12:00-12:15 **FR.C.2_O4 - Muon Spin Relaxation studies of Mott Transition Systems: RNiO3, (Ca,Sr)2RuO4 and (Sr,La)2IrO4**

B. Frandsen [1], L. Liu [1], S. Cheung [1], Y. Uemura [1], T. Munsie [2], M.Wilson [2], A. Hallas [2], G. Luke [2], B. Chen [3], C. Jin [3]
*1. Department of Physics, Columbia University, United States*
*2. Department of Physics, McMaster University, Hamilton, Canada*
*3. Institute of Physics, Chinese Academy of Sciences, Beijing, China*
*4. Department of Physics, Zhejiang University, Hangzhou, China*
*5. Instituto de Ciencia de Materiales de Madrid (ICMM), CSIC, Madrid, Spain*
*6. Department of Physics, Harvard University, Cambridge, United States*
*7. Department of Materials Science and Engineering, UC Berkeley, Berkeley, United States*
*8. Kurume Institute of Technology, Kurume, Japan*
*9. Department of Physics, Kyoto University, Kyoto, Japan*

12:15-12:30 **FR.C.2_O5 – A population inversion observed in surface Dirac cone of topological insulator Sb2Te3**

K. Sumida
*1. Graduate School of Science, Hiroshima University, Horoshima-shi, Japan*

## FR.D.2_ELECTRONIC STRUCTURE. ITINERANT ELECTRON MAGNETISM. HALF METALS. INSULATORS

**11:00-12:30 (ROOM H2)**

**Chair:** Sébastien Burdin

11:00-11:30 **FR.D.2_I1 - First principles design of complex magnetic oxides**

A. Ernst[1]
*1. Max Planck Institute of Microstructure Physics, Weinberg, Germany*

11:30-11:45 **FR.D.2_O2 - Half metallicity with huge room temperature spin polarization in the ferromagnetic Heusler compound Co2MnSi**

A. Kronenberg [1], J. Minar [2], J. Braun [2], S. Chadov [3], B. Balke [4], A. Gloskovskii [5], M. Kolbe [1], H. J. Elmers [1], G. Schönhense [1], H. Ebert [2]
*1. Physics, Mainz University, Germany*
*2. Chemistry, LMU München, Germany*
*3. MPI-CPfS, Dresden, Germany*
*4. Chemistry, Mainz University, Germany*
*5. DESY, Hamburg, Germany*

11:45-12:00 **FR.D.2_O3 - Coexistence of Half-Metallic Itinerant Ferromagnetism with Local-Moment Antiferromagnetism in Ba0.60K0.40Mn2As2**

A. Pandey[1], B.G. Ueland[1], S. Yeninas[1], A. Kreyssig[1], A. Sapkota[1], Y. Zhao[2,3], J. S. Helton[2], J.W. Lynn[2], R.J. McQueeney[1], Y. Furukawa[1], A.I. Goldman[1], D.C. Johnston[1]
*1. Ames Laboratory-USDOE, Iowa State University, Ames, Iowa, United States*
*2. NIST Center for Neutron Research, National Institute of Standards and Technology, Gaithersburg, Maryland, United States*
*3. Department of Materials Science and Engineering, University of Maryland, College Park, Maryland, United States*

12:00-12:15 **FR.D.2_O4 - Observation of Quantum Oscillations on La-doped Sr3Ir2O7 single crystals**

Z. Feng [1], J. Bruin [2], E. Hunter [3], R. Perry [1], D. Mcmorrow [1,4]
*1. London Centre For Nanotechnology, University College London, United Kingdom*
*2. High Field Magnetic Laboratory, Nijmegen, Netherlands*
*3. School of Physics & Astronomy, The University of Edinburgh, Edinburgh, United Kingdom*
*4. Department of Physics and Astronomy, University College London, United Kingdom*

12:15-12:30 **FR.D.2_O5 - DISCRETE ATOMIC-LIKE CRYSTAL-FIELD STATES IN LaCoO3 , K2CoF4 AND CoO MOTT INSULATORS**

R. Radwanski[1]
*1. Institute Of Physics, Pedagogical University, Krakow, Poland*

## FR.E.2_MEASURING TECHNIQUES AND INSTRUMENTATION

**11:00-12:30 (ROOM H3)**

**Chair:** Etienne Snoek

11:00-11:30 **FR.E.2_I1 - Studies of magnetic structures and magnetization dynamic using scanning transmission x-ray microscope**

T. Tyliszczak[1]
*1. Advanced Light Source, Lawrence Berkeley National Laboratory, Berkeley, United States*

11:30-11:45 **FR.E.2_O2 - A nanopaleomagnetic study of the early solar system by means of X-ray PEEM**

J. Herrero-Albillos [1], J.F.J. Bryson [2], C. I. O'Bryen Nichols [2], R.J. Harrison [2], F. Kronast [3]
*1. Centro Universitario de la Defensa, Zaragoza, Spain, Zaragoza, Spain*
*2. University of Cambridge, Cambridge, United Kingdom*
*3. Helmholtz-Zentrum Berlin, BESSY II, Berlin, Germany*

11:45-12:00 **FR.E.2_O3 - Direct observation of the magnetocrystalline anisotropy axes in Fe3-xO4 nanoparticles by MFM**

C. Moya [1], Ó. Iglesias-Freire [2,3], N. Pérez [1], X. Batlle [1], A. Labarta [1], A. Asenjo [2]
*1. Departament de Física Fonamental, Institut de Nanociència i Nanotecnologia, Universitat de Barcelona, Barcelona, Spain*
*2. Instituto de Ciencia de Materiales de Madrid (ICMM-CSIC), Cantoblanco, Madrid, Spain*
*3. Department of Physics, McGill University, Montreal, Canada*

12:00-12:15 **FR.E.2_O4 - Ghost imaging protocol for magneto-optical applications**

A. Caprile [1], A. Meda [2], I. R. Berchera[2], I. P. Degiovanni [2], A. Avella [2], A. Magni [1], M. Genovese [2], M. Pasquale [1]
*1. INRiM - Electromagnetism Division, Torino, Italy*
*2. INRiM - Optics Division, Torino, Italy*

12:15-12:30 **FR.E.2_O5 - Neutron scattering in magnetic fields up to 26 teslas**

O. Prokhnenko [1], M. Bartkowiak [1], W. Stein [1], N. Stuesser [1], H. Bleif [1], K. Prokes [1], M. Bird [2], P. Smeibidl [1], B. Lake [1]
*1. Helmholtz-Zentrum Berlin, Germany*
*2. National High Magnetic Field Laboratory, Tallahassee, United States*

## FR.F.2_MAGNETISM THEORY AND SIMULATION OF QUANTUM AND CLASSICAL SYSTEMS

**11:00-12:30 (ROOM A)**

**Chair:** Luis Brey

11:00-11:30 **FR.F.2_I1 - Topological defects in quantum spin-nematics**

Y. Akagi [1], H. Ueda [1], N. Shannon [1]
*1. Okinawa Institute of Science And Technology, Okinawa, Japan*

11:30-11:45 **FR.F.2_O2 - Quantum Molecular Magnetism**

S. Brechet [1], F. Reuse [1], K. Maschke [1], J. Ansermet [1]
*1. EPFL, LaUnited Statesnne, Switzerland*

11:45-12:00 **FR.F.2_O3 - Micromagnetic Simulations of three dimensional magnonic crystals**

L. Spinu [1], A. Maksymov [1]
*1. AMRI & Physics, University Of New Orleans, United States*

12:00-12:15 **FR.F.2_O4 - Remote qubit manipulation by magnetic solitons**

A. Cuccoli [1,2], D. Nuzzi [1,2], R. Vaia [2,3], P. Verrucchi [1,2,3]
*1. Universitá Di Florence - Dipartimento Di Fisica E Astronomia, Florence, Italy*
*2. INFN - Sezione di Florence, Florence, Italy*
*3. Istituto di Sistemi Complessi del CNR, Roma, Italy*

12:10-12:30 **FR.F.2_O5 - Energy Efficient Thermally Induced Magnetization Switching by Tailoring the Electron and Phonon Dynamics**

T. Ostler [1], U. Atxitia [2,3], O. Chubykalo-Fesenko [4], R. Chantrell [1]
*1. Department of Physics, The University Of York, Heslington, United Kingdom*
*2. Fachbereich Physik, Universität Konstanz, Konstanz, Germany*
*3. Zukunftskolleg, Universität Konstanz, Konstanz, Germany*
*4. Instituto de Ciencia de Materiales de Madrid, CSIC, Cantoblanco, Madrid, Spain*

## FR.G.2_MAGNETIC SEMICONDUCTORS AND DILUTED MAGNETS

**11:00-12:15 (ROOM B1-B3)**

**Chair:** Maciek Sawiki

11:00-11:30 **FR.G.2_I1 - Novel diluted ferromagnetic semiconductors iso-structural to FeAs superconductors**

Y. Uemura [1], L. Liu [1], B. Frandsen [1], S. Cheung [1], B. Chen [2], Z. Deng [2], K. Zhao [2], C. Jin [2], C. Ding [3], F. Ning [3]
*1. Physics Dept., Columbia Univ., New York, United States*
*2. Institute of Physics, Chinese Academy of Science, Beijing, China*
*3. Dept. of Physics, Zhejiang Univ., Hangzhou, China*
*4. Dept. of Physics and Astronomy, McMaster Univ., Hamilton, Ontrio, Canada*
*5. Advances Science Research Center, JAEA, Tokai, Japan*

11:30-12:00 **FR.G.2_I2 - Magnetic order at the (111) polar surfaces of SrTiO3: a non-magnetic insulator**

J. I. Beltrán [1,2], M. C. Muñoz [1]
*1. Instituto De Ciencia De Materiales De Madrid (ICMM) Consejo Superior De Investigaciones Científicas (CSIC), Madrid, Spain*
*2. Departamento de Física Aplicada III, Universidad Complutense de Madrid, Madrid, Spain*

12:00-12:15 **FR.G.2_O3 - Defect induced magnetism in SiC**

S. Zhou [1], Y. Wang [1], Y. Liu [1], S. Gemming [1], M. Helm [1]
*1. Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany*

## FR.H.2_APPLIED MAGNETISM OF ORGANIC COMPOUNDS AND BIOMEDICAL APPLICATIONS

**11:00-12:30 (ROOM D1-D3)**

**Chair:** Jürgen Kosel

11:00-11:30 **FR.H.2_I1 - Conductive Atomic Force Microscopy of Magnetic Tunnel Junction Nanopillars**

S. Majetich [1], S. Piotrowski [1], S. Oberdick [1], M. Bapna [1], A. Abdelgawad [1], M. Matty [1]
*1. Carnegie Mellon University, Pittsburgh, Pennsylvania, United States*

11:30-11:45 **FR.H.2_O2 - Ferritin-based Multifunctional Nanoparticles for Magnetic Fluid Hyperthermia**

C. Innocenti [1], A. Guerrini [1], E. Fantechi [1], M. Zanardelli [2], L. di Cesare Mannelli [2], C. Ghelardini[2], M. Fornara [3], E. Falvo [3], P. Ceci [3], C. Sangregorio [4]
*1. INSTM-LaMM and Dip. di Chimica "U. Schiff", Univ. di Florence, Florence, Italy*
*2. Dip. NEUROFARBA - Sez. Farmacologia e Tossicologia, Univ. di Florence, Florence, Italy*
*3. CNR-IBPM, Dip. di Scienze Biochimiche "A. Rossi Fanelli", Univ. di Roma "La Sapienza", Rome, Italy*
*4. CNR-ICCOM and INSTM, Florence, Italy*

11:45-12:00 **FR.H.2_O3 - Efficient, safe and fast magnetic targeting of stem cells in spinal cord injury**

V. Zablotskii [1], O. Lunov [1], D. Tukmachev [2], E. Sykova [2], S. Kubinova [2], A. Dejneka [1]
*1. Institute of Physics ASCR, Prague, Czech Republic*
*2. Institute of Experimental Medicine ASCR, Prague, Czech Republic*

12:00-12:15 **FR.H.2_O4 - Regulation of mesenchymal stem cell adipogenesis by oscillating high-gradient magnetic fields**

O. Lunov [1], V. Zablotskii [1], E. Syková [2], Š. Kubinová [1,2], A. Dejneka [1]
*1. ASCR, Institute of Physics, Prague, Czech Republic*
*2. ASCR, Institute of Experimental Medicine, Prague, Czech Republic*

12:15-12:30 **FR.H.2_O5 - Halbach Arrays Consisting of Cubic Elements Optimized for High Field Gradients in Drug Delivery Applications**

L. Barnsley [1], J. Owen [1], D. Carugo [1], E. Stride [1]
*1. Institute of Biomedical Engineering, Department of Engineering Science, University of Oxford, Oxford, United Kingdom*

## FR.I.2_SURFACE AND INTERFACE EFFECTS

**11:00-12:30 (ROOM D4-D6)**

**Chair:** Alexander Gerber

11:00-11:30 **FR.I.2_I1 - Nonlinear unidirectional spin Hall magnetoresistance**

P. Gambardella[1]
*1. Department of Materials, ETH Zurich, Switzerland*

11:30-11:45 **FR.I.2_O2 - Influence of non-magnetic spacers on spin wave spectra in two-dimensional binary magnonic crystals**

P. Malago [1], P.Gruszecki [2], L. Giovannini [1], M. Krawczyk [2]
*1. Dipartimento di Fisica e Scienze della Terra, Universitá di Ferrara, Ferrara, Italy*
*2. Faculty Of Physocs, Adam Mickiewicz University In Poznan, Poznan, Poland*

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| 11:45-12:00 | **FR.I.2_O3 - Spin and orbital magnetic moment of reconstructed √2 ×√2*R*45° magnetite (001)** |

L. Aballe [1], L. Martín-García [2], R. Gargallo-Caballeroa [2], M. Monti [2], M. Foerster [1], J. F. Marco [2], J. de la Figuera [2]
*1. ALBA Synchrotron Light Facility, Barcelona, Spain*
*2. Instituto de Física-Química Rocasolano (CSIC), Madrid, Spain*

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| 12:00-12:15 | **FR.I.2_O4 - Imprinting magnetic chiral spin textures** |

R. Streubel [1], F. Kronast [2], U. K. Rössler [3], O. G. Schmidt [1,4], P. Fischer [5,6], D. Makarov [1]
*1. Institute for Integrative Nanosciences, IFW Dresden, Germany*
*2. Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Germany*
*3. Institute for Theoretical Solid State Physics, IFW Dresden, Germany*
*4. Material Systems for Nanoelectronics, Chemnitz University of Technology, Germany*
*5. Center for X-ray Optics, Lawrence Berkeley National Laboratory, CA, United States*
*6. Physics Department, UC Santa Cruz, CA, United States*

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| 12:15-12:30 | **FR.I.2_O5 - Macroscopic and static measurement of interfacial Dzyaloshinskii-Moriya interaction** |

D. Han [1], Y. Yin [1,] N. Kim [2,3], J. Kim [1], J. Koo [1,] J. Cho [2,] R. Lo Conte [3], G. Karnad [3], T. Schulz [3], M. Klaui [3]
*1. Department Of Applied Physics, Center For NanoMaterials, Eindhoven University Of Technology, Eindhoven, Netherlands*
*2. Department of Physics, Inha University, Incheon, Korea*
*3. Institut fur Physik and Exzellenz Graduiertenschule Materials Science in Mainz, Johannes Gutenberg Universitat Mainz, Mainz, Germany*

## FR.J.2_FAST AND ULTRAFAST MAGNETIZATION DYNAMICS

**11:00-12:30 (ROOM E1-E3)**

**Chair:** Markus Muenzenberg

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| 11:00-11:30 | **FR.J.2_I1 - Controlled optical switching of ferromagnetic thin films and nanostructures** |

E. Fullerton[1]
*1. Center of Magnetic Recording Research, University of California, San Diego, United States*

| | |
|---|---|
| 11:30-12:00 | **FR.J.2_I2 - Ultrafast Thermally Induced Magnetization Switching in structured systems** |

T. Ostler [1], C. Zhu [1,2], R. Evans [1], R. Chantrell [1]
*1. Department of Physics, University of York, York, United Kingdom*
*2. College of Electric Engineering, South China Agricultural University, Guangzhou, Guangdong, China*

12:00-12:15 **FR.J.2_O3 - Magnetic Switching Dynamics due to Ultrafast Exchange Scattering in a Toy Model of a Ferrimagnetic Alloy**

H. C. Schneider [1], A. Baral [1]
*1. University of Kaiserslautern, Kaiserslautern, Germany*

12:15-12:30 **FR.J.2_O4 - The role of the non-collinear magnetic structure on ultrafast laser-induced spin dynamics in NdFeCo and PrFeCo**

J. Becker [1,2], A. Tsukamoto [3], A. Kirilyuk [1], T. Rasing [1], J. Kees Maan [2], P. Christianen [2], A. Kimel [1]
*1. Radboud University Nijmegen, Institute for Molecules and Materials, Nijmegen, The Netherlands*
*2. High Field Magnet Laboratory, Institute for Molecules and Materials, Radboud University Nijmegen, , Nijmegen, The Netherlands*
*3. College of Science and Technology, Nihon University, Funabashi, Chiba, Japan*

## PLENARY-5

**12:30-13:30 (AUDITORIUM)**

**Chair:** Axel Hoffmann

12:30-13:30 **PLENARY 5 - Magnetic Materials for Green Technologies**

Oliver Gutfleisch
*Technical University of Darmstadt, Darmstadt, Germany*

## FR.SEMIPLENARY-1

**16:00-16:45 (AUDITORIUM)**

**Chair:** Laura H. Lewis

16:00-16:45 **FR.SP-1 - Magnetocaloric effect: Challenges and opportunities**

Vitalij Pecharsky
*Ames Laboratory, Iowa State University, Ames, United States*

## FR.SEMIPLENARY-2

**16:00-16:45 (ROOM J)**

**Chair:** Nora Dempsey

16:00-16:45 **FR.SP-2 - Nanomagnets in the organism: opportunity for therapy and long term fate**

Florence Gazeau
*MSC CNRS/Université Paris Diderot, Paris, France*

## FR.SEMIPLENARY-3

**16:00-16:45 (ROOM F)**

**Chair:** Alexander Granovsky

16:00-16:45 **FR.SP-3 - Ferromagnetic Shape Memory Thin Films: Structure And Magnetic Anisotropy**
José Manuel Barandiaran
*BCMaterials & Univ. of the Basque Country, Bilbao, Spain*

## FR.A.3_SOFT AND HARD MAGNETIC MATERIALS

**17:15-18:00 (ROOM J)**

**Chair:** Miroslav Werwinsky

17:15-17:30 **FR.A.3_O1 - Permanent Magnet Demagnetization Process Considering The Inclination Of The Demag Field**
S. Tizianel [1], N. Novello [1]
*1. LEE Srl., NERVIANO, ITALY*

17:30-17:45 **Fr.A.3_O2 -Structure and Magnetic Properties of Sm-Co/ Fe-Co Multilayer Films with In-plane Magnetic Anisotropies Prepared on MgO(110) Single-Crystal Substrates**
M. Ohtake
*1. Chuo University, TOKYO, JAPAN*

17:45-18:00 **Fr.A.3_O3 -Magnetization reversal process of Nd-Fe-B sintered magnets observed by magnetic very small angle neutron scattering**
K. Ono
*1. High Energy Accelerator Research Organization (KEK), Tsukuba, Japan*

## FR.B.3_SUPERCONDUCTIVITY AND MAGNETISM, INCLUDING EXOTIC SUPERCONDUCTIVITY

**17:15-18:15 (ROOM F)**

**Chair:** Alvar Sánchez

17:15-17:30 **FR.B.3_O1 - A Novel Superconductor in Actinoid Platinum Metal Borides**
E. Bauer [1], C. Blaas-Schenner [1], D. Reith [2], W. Wolf [2], P. Rogl [3], R. Podloucky [3], E. Royanian [1], O. Sologub [1], H. Michor [1], E. Scheidt [4]
*1. Vienna University of Technology, Wien, Austria*
*2. Materials Design, S.A.R.L., Montrouge, France*
*3. University of Vienna, Wien, Austria*
*4. University of Augsburg, Augsburg, Germany*
*5. Academy of Sciences of the Czech Republic, Prague, Czech Republic*
*6. Universidade de Lisboa, Lisboa, Portugal*

17:30-17:45 **FR.B.3_O2 - Colossal thermoelectric effect due to Berry phase fluctuation in chiral superconductors**
S. Fujimoto [1], H. Sumiyoshi [2]
*1. Department Of Materials Engineering Science, Osaka University, Suita, Japan*
*2. Department of Physics, Kyoto University, Kyoto, Japan*

17:45-18:00 **FR.B.3_O3 - Quasiparticle interference in chiral superconductors and hidden order phase**
P. Thalmeier [1], A. Akbari [2]
*1. Max Planck Institute For Chemical Physics of Solids, Dresden, Germany*
*2. Asia Pacific Center for Theoretical Physics and Department of Physics, POSTECH, Pohang, Gyeongbuk, Republic of Korea*

18:00-18:15 **FR.B.3_O4 - Superconductivity of Icosahedral Yb Approximants with Tsai-type Clusters**
K. Deguchi [1], M. Nakayama [1], S. Matsukawa [1], K. Imura [1], K. Tanaka [2], T. Ishimasa [2], N. Sato [1]
*1. Department of Physics, Graduate School of Science, Nagoya University, Nagoya, Japan*
*2. Division of Applied Physics, Graduate School of Engineering, Hokkaido University, Sapporo, Japan*

## FR.D.3_ELECTRONIC STRUCTURE. ITINERANT ELECTRON MAGNETISM. HALF METALS. INSULATORS

**17:15-18:15 (ROOM H2)**

**Chair:** Jesús A. Blanco

17:15-17:30 **FR.D.3_O1 - Prediction of magnetic ordering in layered technetium perovskite Sr2TcO4**
A. Horvat [1], L. Pourovskii [2], M. Aichhorn[3], J. Mravlje [1]
*1. Jozef Stefan Institute, Ljubljana, Slovenia*
*2. Ecole Polytechnique, Palaiseau, France*
*3. TU Graz, Graz, Austria*

17:30-17:45 **FR.D.3_O2 - Inherent orbital-selective tunneling in a STM measurement**
Y. Takahashi [1], K. Ienaga [1], N. Kawamura [1,2], T. Miyamachi [1], A. Ernst [3], F. Komori [1]
*1. ISSP, Univ. of Tokyo, Japan*
*2. STRL, NHK, Japan*
*3. MPI, Halle, Germany*

17:45-18:00 **FR.D.3_O3 - The magnetism, energetic stability and magneto-optical properties of the Rh2Mn-Bi-Al and Ir2Mn-Bi-Al alloys**
D. Legut [1], J. Kudrnovsky [2], J. Hamrle [1]
*1. VSB-Technical University Of Ostrava, Czech Republic*
*2. Institute of Physics ASCR, Prague, Czech Republic*

18:00-18:15 **FR.D.3_O4 - Origin of non-monotonic concentration and temperature dependence of magnetocrystalline anisotropy in $(Fe_{1-x}Co_x)_2B$ alloys**

K. Belashchenko [1], I. Zhuravlev [1], L. Ke [2], M. Daene [3], L. Benedict [3], V. Antropov [2]
*1. University of Nebraska-Lincoln, Lincoln, United States*
*2. Ames Laboratory, Ames, United States*
*3. Lawrence Livermore National Laboratory, Livemore, United States*

## FR.E.3_MAGNETIC NANOPARTICLES

**17:15-18:15 (ROOM H3)**

**Chair:** Nicolai Usov

17:15-17:30 **FR.E.3_O1 - Domain Wall on a Magnetic Helix with Easy-Tangential Anisotropy**

O. Pylypovskyi [1], D. Sheka [1], V. Kravchuk [2], D. Makarov [3], O. Schmidt [3], Y. Gaididei [2]
*1. Taras Shevchenko National University of Kyiv, Kyiv, Ukraine*
*2. Institute for Theoretical Physics, Kyiv, Ukraine*
*3. Institute for Integrative Nanosciences, IFW Dresden, Dresden, Germany*

17:30-17:45 **FR.E.3_O2 - Multi-vortex magnetic nanoparticles: A twin-functionalized agent for magnetomechanical cancer-cell destruction and hyperthermia**

D. W. Wong [1], N. Liu [1], Y. Yang [2], W. Liang Gan [1], C. Boon Tan [1], M. Ramu [1], Jun Ding [2], W. Siang Lew [1]
*1. Nanyang Technological University, Singapore*
*2. National University of Singapore, Singapore*

17:45-18:00 **FR.E.3_O3 - Nonlinearity of dynamic magnetization in a superparamagnetic clustered-particle suspension with regard to particle rotatability under oscillatory field**

S. B. Trisnanto [1], Y. Kitamoto [1]
*1. Tokyo Institute Of Technology, Tokyo, Japan*

18:00-18:15 **FR.E.3_O4 - Insight into magnetic configurations in Fe nanocubes by micromagnetic simulations and electron holography**

F. Bonilla [1], C. Gatel [2], L. Lacroix [1], A. Meffre [1], B. Warot-Fonrose [2], E. Snoeck [2], T. Blon [1]
*1. Laboratoire de Physique et Chimie des Nano-objets (LPCNO), Toulouse, France*
*2. CEMES-CNRS, Toulouse, France*

## FR.F.3_MATERIALS FOR ENERGY APPLICATIONS

**17:15-18:15 (ROOM A)**

**Chair:** Joan Josep Suñol

17:15-17:45 **FR.F.3_I1 - Inelastic electronic transport in single-layer graphene and at the surface of topological insulator Bi2Se3**

J. F. Sierra [1], M. V. Costache [1], I. Neumann [1], S.O. Valenzuela [1,2]
*1. ICN2 - Institut Catala de Nanociencia i Nanotecnologia, Campus UAB, Bellaterra, Barcelona, Spain*
*2. ICREA - Institució Catalana de Recerca i Estudis Avanþats, Barcelona, Spain*

17:45-18:00 **FR.F.3_O2 – Study of the field-induced virgin effect in Mn-Fe-P-Si room temperature magnetocaloric compounds**

Andras Bartok[1]
1. *SATIE ENS-Cachan, France*

18:00-18:15 **FR.F.3_O3 - Giant Magnetocaloric effect and thermopower in multiferroic Eu1-xBaxTiO3**

R. Mahendiran [1], K. Rubi [1]
*1. National University Of Singapore, Singapore*

## FR.G.3_DOMAIN WALL MOTION

**17:15-18:00 (ROOM B1-B3)**

**Chair:** Juan Carlos Rojas Sanchez

17:15-17:30 **FR.G.3_O1 - Intrinsic non-adiabatic spin-transfer torque**

K. Kim [1], K. Lee [2], H. Lee [3], M. Stiles [1]
*1. National Institute Of Standards And Technology, Gaithersburg, United States*
*2. Korea University, Seul, Republic of Korea*
*3. Pohang University of Science and Technology, Pohang, Republic of Korea*

17:30-17:45 **FR.G.3_O2 - Quantifying optical spin-transfer torque on a coherently expanding magnetic domain wall by tuneable geometrical pinning**

T. Janda [1,4], P. Roy [2], R. Otxoa [2], A. Ramsay [2], A. Irvine [3], H. Reichlova [1,4], R. Campion [5], B. Gallagher [5], K. Olejnik [4], Z. Soban [4]
*1. Faculty of Mathematics and Physics, Charles University, Prague, Czech Republic*
*2. Hitachi Cambridge Laboratory, Hitachi Europe Limited, Cambridge, United Kingdom*
*3. The Cavendish Laboratory, University of Cambridge, Cambridge, United Kingdom*
*4. Institute of Physics ASCR, Czech Republic*
*5. School of Physics and Astronomy, University of Nottingham, Nottingham, United Kingdom*

17:45-18:00 **FR.G.3_O3 - Reversible Electric Field Driven Magnetic Domain Wall Motion**

K. Franke [1], B. van de Wiele [2], Y. Shirahata [3], S. Hämäläinen [1], T. Taniyama [3], S. van Dijken [1]
*1. NanoSpin, Department of Applied Physics, Aalto University School of Science, Aalto, Finland*
*2. Department of Electrical Energy, Systems and Automation, Ghent University, Ghent, Belgium*
*3. Materials and Structures Laboratory, Tokyo Institute of Technology, Nagatsuta, Midori-ku, Yokohama, Japan*

## FR.H.3_THIN FILM NANOSTRUCTURES

**17:15-18:15 (ROOM D1-D3)**

**Chair:** Germán Pérez Alcázar

17:15-17:30 **FR.H.3_O1 - Helimagnetic spin order in Fe nanoisland on Cu(111)**

S.Phark [1,2], J. Fischer [2], S. Ouazi [2], M. Corbetta [2], D. Sander [2], K. Nakamura [3], J. Kirschner [2]
*1. CCES, Institute for Basic Science, Seoul National University, Seoul, Republic of Korea*
*2. Max-Planck-Institut fur Mikrostrukturphysik, Halle, Germany*
*3. Department of Physics Engineering, Mie University, Tsu, Japan*

17:30-17:45 **FR.H.3_O2 - Magnetization reversal and topological defects in weak perpendicular anisotropy bifurcations**

M. Velez [1,2], C. Blanco-Roldán [1,2], C. Quirós [1,2], A. Sorrentino [3], A. Hierro-Rodriguez [4,5], L. M. Álvarez-Prado [1,2], R. Valcarcel [3], M. Duch [6], N. Torras [6], J. Esteve [6]
*1. Dpto. Física, Universidad de Oviedo, Oviedo, Spain*
*2. Centro de Investigación en Nanomateriales y Nanotecnología, CINN (CSIC - Universidad de Oviedo), El Entrego, Spain*
*3. ALBA Synchrotron, Cerdanyola del Vallés, Spain*
*4. IN-IFIMUP, Departamento de Física e Astronomia, Faculdade de Ciencias, Universidade do Porto, Porto, Portugal*
*5. INESC-TEC (Coordinated by INESC-Porto), Departamento de Física e Astronomia, Faculdade de Ciencias, Universidade do Porto, Porto, Portugal*
*6. Centro Nacional de Microelectrónica, IMB - CNM, CSIC, Campus Universidad Autónoma de Barcelona, Bellaterra, Spain*

17:45-18:00 **FR.H.3_O3 - Suppression of transition from antiferromagnetic to weak ferromagnetic state in (0001) oriented α- $Fe_2O_3$ film by Ir doping**

S. Prakash Pati [1], N. Shimomura [1], H. Hoshino [1], T. Nozaki [1], K. Mibu [2], M. Sahashi [1]
*1. Department of Electronic Engineering, Graduate School of Electronic Engineering, Tohoku University, Sendai, Japan*
*2. Graduate School of Engineering, Nagoya Institute of Technology, Nagoya, Japan*

## FR.I.3_SURFACE AND INTERFACE EFFECTS

**17:15-18:15 (ROOM D4-D6)**

**Chair:** Aitor Mugarza

17:15-17:30

**FR.I.3_O1 - A Magnetic Nano-Skyrmion Lattice Observed in a Si-Wafer Based Multilayer System**

S. Krause [1], A. Schlenhoff [1], P. Lindner [1], J. Friedlein [1], R. Wiesendanger [1], M. Weinl [2], M. Schreck [2], M. Albrecht [2]
*1. University of Hamburg, Hamburg, Germany*
*2. University of Augsburg, Augsburg, Germany*

17:30-17:45

**FR.I.3_O2 - Conduction-electron mediated Dzyaloshinsky-Moriya interaction in pairs of adatoms revealed by ISTS**

M. Steinbrecher [1], A. Ako Khajetoorians [1,2], M. Bouhassoune [3], M. dos Santos Dias [3], S. Lounis [3], M. Ternes [4], J. Wiebe [1], R. Wiesendanger [1]
*1. Department of Physics, Universität Hamburg, Hamburg, Germany*
*2. Institute for Molecules and Materials, Radboud University, AJ Nijmengen, The Netherlands*
*3. Peter Grünberg Institut and Institute for Advanced Simulation, Forschungszentrum Jülich and JARA, Jülich, Germany*
*4. Max-Planck Institut für Festkörperphysik, Stuttgart, Germany*

17:45-18:00

**FR.I.3_O3 - Magnetism of single Ho atoms on metal surfaces**

R. Baltic [1], F. Donati [1], A. Singha [1], S. Stepanow [2], C. Wäckerlin [1], J. Dreiser [3], P. Gambardella [2], S. Rusponi [1], H. Brune [1]
*1. Institute of Condensed Matter Physics (ICMP), École Polytechnique Fédérale de LaUnited Statesnne (EPFL), LaUnited Statesnne, Switzerland*
*2. Department of Materials, ETH Zürich, Zürich, Switzerland*
*3. Swiss Light Source (SLS), Paul Scherrer Institute (PSI), Villigen PSI, Switzerland*

18:00-18:15

**FR.I.3_O4 - Molecular-driven magnetism on a reactive Cu-surface**

A. Bedoya-Pinto [1], Y. Prado [2], S. Shi [3], S. Lach [4], A. Chuvilin [1,6], A. Altenhof [4], A. Droghetti [5], R. Kruthovostovs [1], F. Casanova [1,6], R. Hillenbrand [1,6]
*1. CIC nanoGUNE, Donostia-San Sebastian, Spain*
*2. Instituto de Ciencia Molecular (ICMOL) Universidad de Valencia, Valencia, Spain*
*3. Department of Physics, Chemistry and Biology, Linköping University, Linköping, Sweden*
*4. Department of Physics and Research Center OPTIMAS, University of Kaiserslautern, Erwin-Schrödinger, Kaiserslautern, Germany*
*5. School of Physics, AMBER and CRANN, Trinity College, Dublin, Ireland*
*6. IKERBASQUE, Basque Foundation for Science, Bilbao, Spain*

## CLOSING

**18:15-18:45 (AUDITORIUM)**

# Poster Presentations

## Monday, 6 July

Session 1, 14.30-16.00 (Exhibition Hall) Even poster numbers
Session 2, 18.15-19.30 (Exhibition Hall) Odd poster numbers

A. Superconductivity and magnetism, including exotic superconductivity
B. Low-dimensional. Quantum Spin-Hall effect
C. Spin-orbit and spin-lattice couplings
D. Semiconductor spintronics
E. Organic spintronics. Carbon-based spintronics
F. Spin transfer torque and spin transfer oscillator
G. Spinwave dynamics and magnonics
H. Magnetic thin films and multilayers
I. Exchange bias and exchange springs
J. Theory and modeling
K. Magnetic nanodots, nanowires and nanotubes
L. Materials for Energy applications

## Tuesday, 7 July

Session 1, 14.30-16.00 (Exhibition Hall) Even poster numbers
Session 2, 18.15-19.30 (Exhibition Hall) Odd poster numbers

A. Ferroics and Multiferroics
B. Heavy Fermion Physics including Valence and charge fluctuations
C. Non-Fermi Liquids and Quantum criticality
D. Molecular Magnetism
E. Electronic Structure. Itinerant-electron magnetism. Half-metals. Insulators
F. Magnetic nanoparticles
G. Perpendicular magnetic anisotropy materials
H. Soft and Hard magnetic materials
I. Magnetic information storage, memories and computation

## Thursday, 9 July

Session 1, 14.30-16.00 (Exhibition Hall) Even poster numbers
Session 2, 18.15-19.30 (Exhibition Hall) Odd poster numbers

A. Quantum magnetism and physics of frustration
B. Kondo physics in bulk materials and nanoscale structures
C. Magnetic phase transitions and magnetic interactions
D. Actinides & Lanthanides
E. Metal spintronics
F. Domain wall motion
G. Electric field effect on magnetic systems

H. Spin caloritronics
I. Fast and ultrafast magnetization dynamics
J. Vortex and skyrmion dynamics
K. Thin film nanostructures
L. Hybrid nanostructures
M. Arrays of magnetic nanostructures
N. Magnetophotonics and magnetoplasmonics
O. Magnetic Devices and Novel materials
P. Applied magnetism of organic compounds and Biomedical applications

## Friday, 10 July

Session 1, 14.30-16.00 (Exhibition Hall)

A. Topological Insulators and metal-insulators transitions
B. Theory of Strongly Correlated Matter
C. New Developments
D. Highly frustrated magnetism
E. Magnetism theory & simulation of quantum and classical systems
F. Magnetic semiconductors and Diluted magnets
G. Advanced methods of spin structure determination
H. Surface and interface effects
I. Measuring techniques and instrumentation

A. Superconductivity and magnetism, including exotic superconductivity

**MO.A-P02 - Distinct interplay between magnetism and superconductivity in $Nd_xCe_{1-x}CoIn_5$**

D. Mazzone [1], J. Gavilano [1], S. Raymond [2], L. Howald [3], P. Dalmas de R\'eotier [2], A. Yaouanc [2], E. Ressouche [2], C. Baines [4], M. Kenzelmann [5]
*1. Laboratory for Neutron Scattering and Imaging, Paul Scherrer Institut, Villigen, Switzerland*
*2. SPSMS, UMR-E 9001, CEA-INAC/UJF - Grenoble, France*
*3. Physik-Institut der Universit\'at Z\'urich, Zurich, Switzerland*
*4. Laboratory for Muon Spin Spectroscopy, Paul Scherrer Institut, Villigen, Switzerland*
*5. Laboratory for Developments and Methods, Paul Scherrer Institute, Villigen, Switzerland*

**Mo.A-P03 - $Pr_2Pt_3Ge_5$ - A novel magnetic superconductor?**

J. Gavilano [1], D. Mazzone [1], R. Sibille[2], M. Bartkowiak [2], O. Zaharko[1], M. Mansson[1], J. Schefer [1], M. Frontzek[1], M. Kenzelmann[2]
*1. Laboratory for Neutron Scattering and Imaging, Paul Scherrer Institut,VilligenI, Switzerland*
*2. Laboratory for Developments and Methods, Paul Scherrer Institute, VilligenI, Switzerland*

**Mo.A-P04 - Pressure dependence of superconductivity on filled-skutterudite YOs4P12**

Y. Kawamura[1], H. Mikage[1], Yu Qi Chen[1], J. Hayashi[1], C. Sekine[1]
*1. Muroran Institute of Technology, Muroran, Japan*

**Mo.A-P05 - Raman response function assisted unveiling of the interplay of the coexistent CDW and PDW orders in hole doped cuprates**

P. Goswami[1]
*1. D.B. College,University of Delhi, Delhi, India*

**Mo.A-P12 - Structural changes, transport and magnetic properties of Fe1.02TeySe1-y-xSx compounds with ternary mixture of chalcogens**

N. Baranov[1,2], A. Abouhaswa[2], A. Merentsov [2], N. Selezneva[2]
*1. Institute of Metal Physics, Ekaterinburg, Russia*
*2. Institute of Natural Sciences, Ural Federal University, Ekaterinburg, Russia*

**Mo.A-P13 - Helical majorana fermions in dx2-y2 + i dxy -wave topological superconductivity of doped correlated quantum spin Hall insulators**

Chung-Hou Chung [1,2], Shih-Jye Sun [3], Yung-Yeh Chang [1], Wei-Feng Tsai [4], A. Haim [5], Y. Oreg [5], F. Zhang [6,7]
*1. Department of Electrophysics, National Chiao-Tung University, HsinChu, Taiwan*
*2. Physics Division, National Center for Theoretical Sciences, HsinChu, Taiwan,*
*3. Department of Applied Physics National University of Kaohsiung, Kaohsiung, Taiwan*
*4. Deaprtment of Physics, National Sun Yat-Sen University, Kaohsiung, Taiwan*
*5. Department of Condensed Matter Physics, Weizmann Institute of Science, Rehovot, Israel*
*6. Department of Physics, Zhejiang University, Hangzhou, China*
*7. Collaborative Innovation Center of Advanced Microstructures, Nanjing, China*

**Mo.A-P14 - Enhancement of superconductivity in multi-band systems by odd-parity mixing**

M. Continentino [1], F. Deus [1], H. Caldas [2]
*1. Centro Brasileiro de Pesquisas Físicas, Rio de Janeiro, Brazil*
*2. Universidade Federal de São João Del Rei, São João del Rei, Brazil*

**Mo.A-P15 - Magnetically controlled long-range critical current suppression by ferromagnetic proximity effect**

T. Wren [1,2], V. Petrashov [2], O. Kazakova [1]
*1. National Physical Laboratory, Teddington, U.K.*
*2. Royal Holloway University of London, London, U.K.*

**Mo.A-P16 - Asymmetric Andreev reflection**

Z. Bak [1]
*1. Institute of Physics, Jan Dlugosz University, Częstochowa, Poland*

**Mo.A-P17 - Dual-fermion approach to superconductivities in the two-dimensional kondo lattice**

J. Otsuki [1]
*1. Tohoku Universit, Sendai , Japan*

**Mo.A-P18 - Superconductivity in high entropy alloys**

Z. Jaglicic[1], P. Ko×elj[2], S. Vrtnik[2], A. Jelen[2], S. Jazbec [2], J. Lu×nik[2], J. DolinÜek[2]
*1. University of Ljubljana, FGG And IMFM, Ljubljana, Slovenia*
*2. Jožef Stefan Institute, Ljubljana, Slovenia*

**Mo.A-P19 - Magnetic field dependence of the superconducting proximity effect in a two atomic layer thin metallic film**

J. A. Fischer[1], M. Caminale[1], A. Alvaro Leon Vanegas[1], A Stepniak[1], H Oka[1], D Sander [1], Jürgen Kirschner [1]
*1. Max-Planck-Institut für Mikrostrukturphysik, Halle, Germany*

**Mo.A-P20 - A calorimetric investigation of $RbFe_2As_2$ single crystals**

S. Khim [1], S. Aswartham [1], V. Grinenko [1], Christan G. F. Blum [1], F. Steckel [1], D.l Gruner [1], Anja U. B. Wolter [1], C. He [1], Stefan-Ludwig Drechsler [1], S. Wurmehl [1,2], B. Büchner [1,2]
*1. Leibniz-Institute for Solid State and Materials Research, Dresden, Germany*
*2. Institut für Festkörperphysik, TU Dresden,Dresden, Germany*

**Mo.A-P21 - Collective spin fluctuations in stripe ordered $La_{1.875}Ba_{0.125}CuO_4$ detected by 139La nuclear magnetic resonance**

Seung-Ho Baek [1], M. Huecker[2], G. Gu[2], B. Buechner[1]
*1. IFW Dresden, Dresden, Germany*
*2. Brookhaven National Laboratory, Upton, NY, United States*

**Mo.A-P23 - Magnetic properties of new filled skutterudite compound $BaFe_4As_{12}$**

C. Sekine[1], T. Ishizaka[1], K. Nishine[1], Y. Kawamura[1], H. Gotou [2]
*1. Muroran Institute of Technology, Murora, Japan*
*2. Institute for Solid State Physics, University of Tokyo, Tokyo, Japan*

**Mo.A-P25 - X-ray photoelectron spectroscopy studies of the superconducting $Mo_2B$ and $Mo_2BC$**

R. Escamilla[1,2], E. Carvajal[2], L. Huerta[1], E. Verdín[3], M. Cruz[2]
*1. Instituto de Investigaciones en Materiales-UNAM, Coyoacán, Mexico*
*2. ESIME-Culhuacán, Instituto Politécnico Nacional, Mexico, D. F., Mexico*
*3. Departamento de Física*, Universidad de Sonora, Sonora, Mexico

**Mo.A-P27 - Interplay of charge density wave and superconductivity in BaPt2As2**

C. Guo[1], W. Jiang[1], Y. Chen[1], Z. Weng[1], Y. Wang[1], L. Che[1], G. Pang[1], F. Gao[1], X. Lu[1], H. Yuan[1]
*1. Department of Physics And Center For Correlated Matter, Zhejiang University, Hangzhou, China*

**Mo.A-P28 - The in- and out-of-plane magnetisation of highly underdoped YBa2Cu3O6+x single crystals**

I. Kokanovic[1,2], J. Cooper[2]
*1. Department of Physics, Faculty of Science, University of Zagreb, Zagreb, Croatia.*
*2. Cavendish Laboratory, University of Cambridge, Cambridge, Uinted Kingdom*

**Mo.A-P30 - Strong electronic correlations in the superconductors AFe2As2 (A = K, Rb, Cs)**

K. Grube[1], F. Eilers[1], D. A. Zocco [1], P. Schweiss[1], R. Heid[1], H. Ikeda[2], T. Wolf[1], H. Löhneysen[1,3]
*1. Institute of Solid State Physics, Karlsruhe Institute of Technology, Karlsruhe, Germany*
*2. Department of Physics, Ritsumeikan University, Kyoto, Japan*
*3. Physikalisches Institut, Karlsruhe Institute of Technology, Karlsruhe, Germany*

**Mo.A-P31 - Spin-wave dispersion and magnetic exchange in antiferromagnetic Ca2CuO2Cl2**

M. d'Astuto[1], Mark M. P. Dean[2], A. Nicolaou[3], J. Pelliciari[4], B. Baptiste[1], R. Yu[5], M. Azuma[5], B. W. Lebert[1,3], A. Gauzzi[1], T. Schmitt[4]
*1. IMPMC, UMR7590 UPMC-Sorbonne Universités - Paris, France*
*2. Department of Condensed Matter Physics and Materials Science, Brookhaven National Laboratory, Upton, NY, United States*
*3. Synchrotron SOLEIL, Gif-sur-Yvette, France*
*4. Swiss Light Source, Paul Scherrer Institut, Villigen, Switzerland*
*5. Materials and Structures Laboratory, Tokyo Institute of Technology, Yokohama, Japan*

**Mo.A-P32 - Charge-stripe Character of Magnetic Interactions of the Checkerboard Charge Ordered State**

P. Freeman[1], S. Giblin[2], R. Mole[3], K. Hradil[4], P. Cermak[5], D. Prabhakaran[6]
*1. University of Central Lancashire, Preston, England*
*2. Cardiff University*
*3. Bragg Institute, ANSTO*
*4. Technische Universitt Wien*
*5. Jülich Centre for Neutron Science, Forschungszentrum Jülich*
*6. Oxford University, Oxford, U.K*

**Mo.A-P33 - Magnetic properties of GdT2Zn20 (T = Fe, Co) investigated by x-ray diffraction and spectroscopy**

J. Mardegan[1], G. Fabbris[2,3], D. Haskel[3], M. Avila[4], C. Giles[5]
*1. Deutsches Elektronen-Synchrotron DESY, Hamburg, Germany*
*2. Department of Physics, Washington University, St. Louis, United States*
*3. Advanced Photon Source, Argonne National Laboratory, Lemont, United States*
*4. CCNH, Universidade Federal do ABC (UFABC), São Bernardo do Campo, Brazil*
*5. Instituto de F\'isica ``Gleb Wataghin,' Universidade Estadual de Campinas, Campinas, São Paulo, Brazil*

**Mo.A-P34 - Longitudinal spin excitations in iron-pnictide parent compounds**

M. Fidrysiak [1]
*1. Wrocław University of Technology, Wrocław, Poland*

**Mo.A-P36 - Magnetic investigation of silver sheathed Sr0.6K0.4Fe2As2 superconductor**

M. Reissner[1], B. Brunner[1,2], P. Kovac[2], C. Yao[3], Y. Zhang[3], Y. Ma[3]
*1. Institute of Solid State Physics, TU Wien, Wien, Austria*
*2. Institute of Electrical Engineering, Slovak Academy of Sciences, Bratislava, Slovakia*
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**Mo.A-P37 - Slowly-fluctuating magnetism and superconductivity in NdFeAsO1-xFx: new physics or déjÓ-vu?**

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**Mo.A-P38 - Tension failure of Nb-Cu superconductor alloy with fine grained structure in temperature range 4,2 - 300 K**

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**Mo.A-P39 - Effects of La doping on A-site ordered Cr perovskite oxides with Zhang-Rice state**

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**Mo.A-P40 - Elastic softening in the orthorhombic compound YbPdGe**

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**Mo.A-P41 - Excitonic condensation and superconductivity in Ta2NiSe5**

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**Mo.A-P42 - Novel electronic structures in ru-pnictides RuPn (Pn = P, As, Sb)**

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**Mo.A-P44 - Superconductivity under pressure in FeSe1-xTex studied by dc magnetic measurements**

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**Mo.A-P45 - Charge density wave and superconductivity in novel Pt-based superconductors : SrPt2As2 and LaPt2Si2**

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**Mo.A-P47 - Quantum criticality at the lifshitz point in electron doped iron arsenides**

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**Mo.A-P48 - Cohabitating phasesin metaldoped BaFe2As2: a structural corroboration**

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**Mo.A-P49 - Induced p-wave superfluidity in imbalanced fermi gases in a synthetic gauge field**

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**Mo.A-P50 - structural, electronic and magnetic properties of 42214 fe-based superconductors**

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**Mo.A-P52 - Isovalent substitution effect of P to As on magnetic characteristics of EuFe2As2-xPx single crystals.**

T. Kashiwagi[1], Y. Arakawa[1], T. Ishikawa[1], K. Kadowaki[1]
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**Mo.A-P53 - Elastic softening in $HoFe_2Al_{10}$**

S. Kamikawa[1], I. Ishii[1], H. Goto[1], T. Fujita[1], F. Nakagawa[1], H. Tanida[1], M. Sera[1], T. SuZuki[1]
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**Mo.A-P54 - Superconductivity in LaPd2Al(2-x)Gax compounds**

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**Mo.A-P55 - Pressure dependence of the magnetic order in CrAs**

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**Mo.A-P56 - Effective doping, pressure-induced metallization and magnetic phases in the BiS2 family of superconductors from first principles**

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**Mo.A-P57 - Magnetic ground states of superconducting $Eu(Fe_{1-x}M_x)_2As_2$ (M = Co, Ru, Ir) as revealed by single-crystal neutron diffraction**

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**Mo.A-P58 - LaAlO3/SrTiO3 quantum wells: engineering 2D-superconductivity and rashba spin-orbit coupling by selective orbital occupancy**

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**Mo.A-P59 - New Insights in the phase diagram of URhGe**

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**Mo.A-P60 - Enhancement of Tc due to pressure application in LaFeAsO1-xHx studied by NMR**

N. Fujiwara[1], N. Kawaguchi[1], S. Iimura[2], S. Matsuishi[2], H. Hosono[2]
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**Mo.A-P61 - The nature of the metamagnetic transition in ferromagnetic superconductor UGe2**

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**Mo.A-P63 - Doping effect on Pd site of quasi-one-dimensional Nb2PdS5**

Z.-An Xu[1], C. Shen[1], B. Si[1], H. Bai[1], X. Yang[1], Q. Tao[1]
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**Mo.A-P64 - Superconducting and quadrupolar properties of a dilute praseodymium system Y1-xPrxIr2Zn20 for x < 0.1**

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**Mo.A-P66 - Development of ferromagnet/spin-triplet superconductor hybrid to study proximity effects**

M. S. Anwar [1], Y. Sugimoto[1], Y. J. Shin[2,3], S. J. Kang [2,3], Y. Tano[4], S. R. Lee [2,3], R. Ishiguro[4,5], S. Yonezawa[1], H. Takayanagi[4], T. W Noh[2,3]
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**Mo.A-P68 - Pressure effects on superconducting properties of fese0.5te0.5**

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**Mo.A-P69 - A manifestation of latent superconductivity in ferromagnet via a proximity effect in FS structures**

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**Mo.A-P70 - Pressure dependence of superconducting and normal state properties in YFe2Ge2**

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**Mo.A-P71 - Competition of spin and charge orders in a model cuprate**

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**Mo.A-P72 - Low-energy magnetic excitations in La_{1.855}Sr{0.145} CuO_4 in the vicinity of a quantum-critical point**

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**Mo.A-P73 - Electrostatic Doping under Pressure**

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**Mo.A-P74 - Impurity defects in iron-doped Bi2212**

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**Mo.A-P75 - Two superconducting phases separated by a Lifshitz transition in LaFeAs1-xPxO**

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**Mo.A-P76 - Pseudogap and kinetic energy of unconventional superconductivity in the two-dimensional Hubbard model**

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**Mo.A-P77 - Superconductivity in an antisymmetric diatomic s - p chain: application to BiS2**

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**Mo.A-P78 - The transport measurement on KxFe2-ySe2 at high pressure**

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**Mo.A-P79 - Magnetic measurements of superconducting KxFe2-ySe2 single crystals under high pressure**

K. Miyoshi[1], M. Kondo[1], K. Morishita[1], G. Motoyama[1], K. Fujiwara[1], J. Takeuchi[1]
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**Mo.A-P80 - Improvement of high-pressure thermal expansion measurement using an active-dummy method with an application to the antiferromagnetic superconductor CeRhIn5**

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**Mo.A-P81 - Correlation between ferromagnetism and superconductivity in Y9Co7**

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**Mo.A-P83 - Cu-NMR Study of Single Crystal CeCu2Si2 under pressure**

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**Mo.A-P84 - Drastic enhancement of superconducting transition temperature in 112-type Ca1-xRExFeAs2 (RE = La, Ce, Pr, Nd) induced by negative chemical pressure**

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**Mo.A-P85 - Superconductivity in the higher borides Zr1-xLuxB12 AND Y1-xLaxB6**

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**Mo.A-P86 - Precise phase control and superconductivity in $A_x(NH_3)_yFe_{2-d}Se_2$ system (A: Alkali and Alkali-earth metal)**

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**Mo.A-P88 - V substitution of Co In Nd(Co1-xVx)2Si2; A crossover from antiferro to ferromagnetism**

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**Mo.A-P89 - Anomalous ferromagnetic anomaly coexisting with superconductivity in layered superconductor CeO1-xFxBiS2**

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**Mo.A-P90 - NMR studies on the in-plane anisotropy of the iron pnictide LiFeAs**

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**Mo.A-P91 - Superconductivity in the doped ferromagnetic semiconductor samarium nitride**

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**Mo.A-P92 - A half-quantum vortex in chiral or helical p-wave superconducting states**

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**Mo.A-P96 – $La_3Co$ - superconductivity on the edge of ferromagnetism**

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**Mo.A-P97 - K-doping effect in Ba1-xKxFe2As2 studied by x-ray emission and absorption spectroscopy**

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**Mo.A-P98 - Superconducting versus non-superconducting FeTe0.6Se0.4 single crystals in high magnetic fields**

K. Prokes[1], S. Hartwig[1], S. Wurmehl[2], E. Kampert[3], J. Law[3], T. Foerster[3], C. Hess[2], M. Sculze[2], S. Landsgesell[1], B. Buechner[2]
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**Mo.A-P100 - Superconducting properties and pseudogap from preformed Cooper pairs in the triclinic (CaFe(1-x)Pt(x)As)10Pt3As8**

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**Mo.A-P101 - C-axis resistivity of superconducting FeSe single crystals: upper critical field and its angular behavior**

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**Mo.A-P102 - Investigation of the magnetic character of oxy-pnictides via Spin Dilution**

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**Mo.A-P104 - Phase diagrams for coexistence of localised magnetism and superconductivity from a microscopic model**

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**Mo.A-P107 - Superconductivity in YPt2Si2**

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**Mo.A-P108 - Field-dependence of charge order in the cuprate high-temperature superconductor La2-xSrxCuO4**

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**Mo.A-P109 - The high pressure - low temperature structural phase diagram of KxFe2-ySe2**

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**Mo.A-P110 - Pressure and field dependence of superconductivity in RbFe2As2**

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**Mo.A-P111 - Elastic softening and phase transition characteristics in YbPtGe**

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**Mo.A-P112 - Fermi Surface measurement of $TlNi_2Se_2$ by quantum oscillations**

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B. Low-dimensional. Quantum Spin-Hall effect

**Mo.B-P02 - Unusual magnetic ground states of novel S = 1/2 square-lattice antiferromagnets Sr2NiO3X (X = F, Cl)**

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**Mo.B-P03 - Valley-spin locked, tunable super-current transport in superconductor / normal silicene or germanene/ superconductor junction**

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**Mo.B-P04 - Nonlinear dielectric susceptibility in a multiferroic quantum magnet Sul-Cu2Cl4**

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**Mo.B-P05 - Magnetic structure of quasi-one-dimensional frustrated antiferromagnet Cu3Mo2O9**

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**Mo.B-P06 - Magnetic ground state of novel zigzag chain compounds, NaCr2O4 and Ca1-xNaxCr2O4, determined with muons and neutrons**

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**Mo.B-P07 - Spin pseudogap in doped S =1/2 Heisenberg antiferromagnetic spin chains**

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**Mo.B-P08 - Influence of sample quality on the physical properties of the S=1 antiferromagnetic spin-ladder CaV(2)O(4)**

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**Mo.B-P09 - Low dimensional magnetism induced by chalcogen ordering.**

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**Mo.B-P11 - Quasi one dimensional magnetism in Mn1-xFexNb2O6 compounds**

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**Mo.B-P12 - Magnetic properties of quasi one-dimensional antiferromagnet BaCo2Si2O7**

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**Mo.B-P13 - Quantum coherence of strongly correlated defects in spins chains**

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**Mo.B-P14 - Magnetic properties of layered one dimensional γ-$CoV_2O_6$ and $NiV_2O_6$ magnetic oxides: a comparative study**

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**Mo.B-P15 - Controlled bond disorder in the model spin ladder $(C_5H_{12}N)_2CuBr_4$**

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**Mo.B-P16 - The spin structure on the ground state of the equilateral triangular spin tube CsCrF_4**

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**Mo.B-P17 - NMR study on the Ru-dimer system with valence fluctuation**

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**Mo.B-P18 - Cu-NMR study of the quasi-one-dimensional antiferromagnet $Cu_3Mo_2O_9$**

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**Mo.B-P19 - Antiferromagnetic ground states and phase separation in doped AA-stacked bilayer graphene**

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**Mo.B-P20 - High field magnetization of single crystals of the *S*=1/2 quasi-1D Ising-like Antiferromagnet $SrCo_2V_2O_8$**

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**Mo.B-P21 - 1H-NMR study of spin-1/2 triple-chain magnet Cu3(OH)4MoO4**

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**Mo.B-P22 - From order to randomness: an experimental investigation of disorder in a one-dimensional spin system**

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**Mo.B-P23 - Spin-Oobit torques originated from topological surface states of Bi2Se3**

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**Mo.B-P24 - off-diafgonal spin-spin correlations in noncollinear antifferomagnets or in applied magnetic fields**

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**Mo.B-P27 - Symmetry-protected topological phases/transition in spin-1/2 zigzag chains and the relevance to Rb2Cu2Mo3O12**

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**Mo.B-P29 - Natural Mineral epidote in magnetic fields**

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**Mo.B-P30 - Effects of the underlying geometry on the physical properties of topological insulators**

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**Mo.B-P31 - Gennus one toroidal topological insulator**

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C. Spin-orbit and spin-lattice couplings

**Mo.C-P02 - Effect of Ce Doping on Elastic and Thermal Properties of $SrCoO_3$**

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**Mo.C-P03 - First principles study of strain induced phase diagram and spin-orbit coupling in (SrIrO3)m/(SrTiO3)1 superlattice**

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**Mo.C-P04 - Onsite magnetic moment and magnetocrystalline anisotropy studies of Lu-/Y- substituted $NiFe_2O_4$**

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**Mo.C-P05 - Multiband spin-lattice relaxation in $Gd^{3+}$-doped $YCo_2Zn_{20}$ probed by electron spin resonance**

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**Mo.C-P06 - Anisotropy of magnetic interactions in complex Ir oxides from band structure calculations**

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**Mo.C-P07 - Asymmetric spinwave dispersion relations in the presence of interfacial Dzyaloshinskii-Moriya interaction using Brillouin light scattering**

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**Mo.C-P08 - Rashba Spin-orbit torques in two-dimensional itinerant ferromagnets**

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**Mo.C-P09 - High temperature magnetism of epsilon-Fe2O3 : the transition from hard to soft ferrimagnetism**

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**Mo.C-P10 - Orbital and spin structures in transition metal compounds with face-sharing octahedra**

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**Mo.C-P11 - XAS and XMCD study on Co doped Ga0.6F1.4O3 films**

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**Mo.C-P12 - Large anisotropic g-factor due to crystalline spin-orbit interaction in bismuth**

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**Mo.C-P13 - Diluting magnetism in Honeycomb lattice Iridates and understanding magnetic exchange**

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**Mo.C-P14 - Neutron diffraction studies on the magnetic structure of a-RuCl3**

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**Mo.C-P15 - Emergent antisymmetric spin-orbit coupling by electronic orders**

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**Mo.C-P16 - Mechanism of the electron paramagnetic resonance line broadening in the hole doped manganites $La_{1-x}Ca_xMnO_3$**

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**Mo.C-P17 - Magnetic order and Trigonal crystal field effects in Sr3NiIrO6**

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**Mo.C-P19 - X-ray Magnetic circular dichroism in the spinel-type vanadium oxides AV2O4 (A=Mn,Fe)**

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**Mo.C-P20 - Current induced switching in Transition-metal/Ferromagnetic multilayers**

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**Mo.C-P21 - 51V NMR study on the orbital degenerated system Sr2VO4 with the K2NiF4 type structure**

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**Mo.C-P22 - Tuning the spectroscopic g-factor in permalloy**

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**Mo.C-P23 - Spin-flip electron scattering in the  Rashba surface alloy**

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**Mo.C-P25 - Current-induced spin polarization and spin-orbit torque in magnetized graphene with Rashba spin-orbit interaction**

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D. Semiconductor spintronics

**Mo.D-P02 - Silicon-based current-controlled reconfigurable magnetoresistance logic device**

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**Mo.D-P03 - Magnetic tunnel junctions with semiconducting rare earth nitride electrodes**

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**Mo.D-P04 - Experimental demonstration of Elliott-Yafet spin relaxation mechanism and room-temperature spin transport in highly-doped n-type Ge epilayers.**

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**Mo.D-P05 - Large magnetoresistance in silicon**

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**Mo.D-P07 - Scattering matrix approach to the anomalous hall effect: 2D network model**

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**Mo.D-P08 - Hot electrons transport in devices combining tunnel and Schottky barriers**

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**Mo.D-P09 - Spin dynamics in three coherently coupled quantum dots**

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**Mo.D-P10 - Spin-glass behavior of Fe doped InAs prepared by ion implantation and pulsed laser annealing**

Y. Yuan [1], H. Cai [1], M. Helm [1], S. Zhou [1]
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**Mo.D-P11 - Spin filtering in double quantum dots aharonov-bohm ring under cubic rashba spin orbit interaction**

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**Mo.D-P12 - Electronic structure and transport properties of Bi2Te3 and Bi2Se3 with magnetic dopants**

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**Mo.D-P13 - Anomalous proportional dependence of spin RA product on tunnel RA product in CoFe/SiO2/Si tunnel contacts**

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**Mo.D-P14 - Oxide diffusion barriers on GaAs(001)**

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**Mo.D-P16 - Electrical spin injection and detection in Si nanowire with CoFeB/MgO contacts**

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**Mo.D-P17 - Spin accumulation and transport signals in Heusler Co2FeSi/MgO/n+-Si on insulator devices**

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**Mo.D-P18 - Electrical spin injection in modulation doped GaAs using in-situ grown Fe/MgO**

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**Mo.D-P19 - Spin transport through high-quality epitaxial Ge/Fe3Si heterostructures in Cu-based lateral spin valves**

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**Mo.D-P20 - MgO diffusion barriers for ferromagnetic electrodes on GaAs(001)**

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**Mo.D-P21 - Manipulation of the magnetism in (Ga,Mn)As films by organic molecules**

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**Mo.D-P22 - Effect of Mn impurities on the 3-terminal Hanle signals in ferromagnet/oxide tunnel contacts on a semiconductor**

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**Mo.D-P23 - Spin transport in an n-type 4H-SiC channel**

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**Mo.D-P24 - All-electric spin transistor using perpendicular spins**

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**Mo.D-P26 - Electrical spin injection and detection in homoepitaxial GaAs(110) layers**

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**Mo.D-P27 - Spin injection in silicon and germanium: new elements for understanding**

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**Mo.D-P29 - Spin selective transport though quantum ring with magnetic impurities**

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**Mo.D-P30 - Hybrid optical generation and electrical detection of spin in Germanium using magnetic tunnel junctions and inverse spin hall effect**

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**Mo.D-P31 - Suppression of spin decay in a laterally confined two-dimensional electron gas**

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E. Organic spintronics. Carbon-based spintronics

**Mo.E-P02 - Tuning of magnetoresistance in organic-based devices by interface engineering**

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**Mo.E-P04 - Spin transistors based on single-molecule magnets**

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**Mo.E-P05 - Cobalt states at a single Graphene/Co interface probed by ferromagnetic nuclear resonance**

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**Mo.E-P06 - Room Temperature Magnetoresistance in SIngle-Molecule Devices**

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**Mo.E-P07 - Magnetoresistance effect of magnetic tunnel junctions with an interface modified by [6]Cyclo-2,7-naphthylenes**

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**Mo.E-P09 - Ferromagnet - organic semiconductor interface for molecular spin electronic devices**

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**Mo.E-P10 - Effect of molecular ordering on spin transport in Fe/MgO/CuPc/Co hybrid junctions**

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**Mo.E-P11 - Tailoring spin-textured interfaces with organic molecules**

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**Mo.E-P12 - Enhanced magnetic field effect in a top-emitting spin-OLED**

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F. Spin transfer torque and spin transfer oscillator

**Mo.F-P01 - Massively parallel micromagnetic simulations of small-size nanoelements with applications to STT-MRAM devices**

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**Mo.F-P02 - Magnetization dynamics of a single-domain magnet under a spin-polarized current with a tilted polarization**

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**Mo.F-P04 - Driven synchronization of multiple nano-contact spin torque oscillators**

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**Mo.F-P05 - Reducing the switching current with a Gilbert damping constant in a nanomagnet with perpendicular anisotropy**

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**Mo.F-P06 - Point-Contact Spin Torque Oscillator with Highly Spin-Polarized $Co_2$(Fe, Mn)Si**

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**Mo.F-P07 - Magnetic phase transition and colossal magnetoresistive effect in Sm0.55Sr0.45-xAgxMnO3 (0 ≤ x ≤ 0.10) system**

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**Mo.F-P08 - Spin torque ferromagnetic resonance in a nano-contact geometry**

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**Mo.F-P09 - Theoretical investigation of spin transfer torque in antiferromagnetic and ferrimagnetic tunnel junctions**

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**Mo.F-P10 - Effectiveness of negative index of surface anisotropy**

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**Mo.F-P12 - Spin-torque generated equilibria in spin Hall systems and their role in magnetic switching**

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**Mo.F-P13 - Narrow linewidth spin-torque oscillator driven by localized current in ferromagnetic nano-contacts**

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**Mo.F-P14 - Experimental evidence of Rashba spin orbit torque in Py/β-Ta bilayer system**

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**Mo.F-P15 - Effects of Dzyaloshinskii-Moriya interaction on the spin transfer magnetization switching in magnetic tunnel junctions**

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**Mo.F-P16 - Spin torque oscillator under a quasiperiodic current**

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**Mo.F-P17 - High frequency oscillation above 10GHz in zero applied field with Rh/FeCo perpendicular free layer Spin-Torque-Oscillator**

Y. Shiokawa[1], K. Sakamoto[1], M. K.O Al-Mahdawi[1], J. Jung[1], M. Sahashi[1]
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**Mo.F-P18 - Spin Hall magnetoresistance in cobalt ferrite thin films with different preferential axes**

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**Mo.F-P19 - Time-domain study of injection locked signal from a magnetic tunnel junction based spin torque oscillators**

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**Mo.F-P20 - Spin wave eigenmodes excited by spin transfer torque in circular nanopillars: influence of lateral size and Oersted field studied by micromagnetic simulations**

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**Mo.F-P21 - Shape anisotropy dependence for Large Power Coherent Microwave MgO/CoFeB based Spin Transfer Nano-oscillators close to the in-plane/out -of-plane anisotropy transition**

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**Mo.F-P22 - Experiment on spin current assisted magnetization reversal using spin pumping effect.**

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**Mo.F-P23 - Spin-Torque Oscillators: Energy Space Dynamics**

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**Mo.F-P24 - NON-LINEAR MODE INTERACTION BETWEEN SPIN TORQUE DRIVEN AND DAMPED MODES IN SPINTORQUE NANO-OSCILLATORS**

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**Mo.F-P25 - High frequency characterization of nanocontact spin torque oscillators with respect to altitude and azimuth angles of applied field**

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**Mo.F-P26 - Analytical model of a synthetic ferrimagnet spin torque oscillator: comparison of the self-polarized with the external polarizer case**

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**Mo.F-P28 - Mechanical analogy for spin currents and torques in diffusive systems**

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G. Spinwave dynamics and magnonics

**Mo.G-P03 - Investigation of Magnetostatic Spin Wave Resonance in Patterned Mu-metal Thinfilms**

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**Mo.G-P04 - Structural control of standing spin wave properties in exchange-coupled multilayer strips.**

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**Mo.G-P05 - Spin-wave frequency non-reciprocity in permalloy thin films**

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**Mo.G-P06 - Spin waves in planar quasicrystals of Penrose tiling**

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**Mo.G-P07 - Spin wave propagation in Permalloy films under tangentially magnetic fields with an arbitrary direction**

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**Mo.G-P08 - High group velocity and large attenuation length of spin-waves in thick permalloy films**

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**Mo.G-P09 - Graded-index magnonics with local electrical currents**

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**Mo.G-P10 - Spin wave excitations in artificial mutiferroic yttrium iron garnet - zinc oxide layered structures**

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**Mo.G-P11 - Excitation of the spin wave beams with coplanar waveguide transducer**

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**Mo.G-P12 - Microwave radiation from parametrically excited magnons**

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**Mo.G-P13 - Stimulated thermalization of a parametrically driven magnon gas as a prerequisite for bose-einstein magnon condensation**

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**Mo.G-P14 - Spin-wave modes in magnonic crystal waveguides and inverted waveguides.**

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**Mo.G-P15 - Twinned domain induced magnonic modes in La0.7Sr0.3MnO3/SrTiO3(001) thin films**

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**Mo.G-P16 - Indirect vs direct magnonic band gap in two types of magnonic crystals: array of metallic stripes and array of grooves in YIG film**

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**Mo.G-P17 - Detection of standing spin waves and investigation of the spin wave stabilities under high power excitations.**

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**Mo.G-P18 - Evaluation of the thermal spin injection driven by ferromagnetic resonance**

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**Mo.G-P19 - Propagation of Volume Mode Spin Waves**

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**Mo.G-P20 - Division and multiplication of a ferromagnetic resonance frequency on the basis of the nonlinear microwave magnetoelastic transducer**

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**Mo.G-P21 - Modeling of rf nonlinear dynamics of magnetoelastic oscillations in a ferrite layers**

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**Mo.G-P22 - Magnetisation dynamics of confined magnetic nanostructures controlled by voltage-induced mechanical strain**

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**Mo.G-P23 - Band structure of two-dimensional magnonic crystals with different antidot sizes: a micromagnetic study**

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**Mo.G-P24 - Spin wavevector dependent spin dynamics and damping processes on the magnetic nanowires**

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**Mo.G-P25 - Spin-wave dynamics and the magnon Hall effect in the pyrochlore Lu2V2O7**

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**Mo.G-P26 - Spin wave dynamics in array of Py stripes with periodic and quasiperiodic order**

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**Mo.G-P27 - Spin-wave scattering by domain walls in ultrathin ferromagnetic films**

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**Mo.G-P29 - Broadband GHz magnetic susceptibility tensor of a synthetic antiferromagnet: experiment and semiianalytical approach**

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**Mo.G-P30 - Ferromagnetic resonance measurements of CoFeCrB alloys films for in-plane spin transfer torque devices**

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**Mo.G-P31 - Spinwave dynamics in elliptical dots: experiment and simulations**

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H. Magnetic thin films and multilayers

**Mo.H-P01 - Influence of demagnetization field direction on domain structure and size of ultra-thin CoPt perpendicular anisotropy films**

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**Mo.H-P02 - Stress-engineering of CoFe2O4 thin films**

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**Mo.H-P03 - Spin-wave properties of IrMn/NiFe based spin-valves**

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**Mo.H-P04 - Detail study of the physical properties in BiFeO3/La2/3Sr1/3MnO3 bilayers.**

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**Mo.H-P06 - Co80Pt20 films with columnar grains and perpendicular magnetic properties produced by epitaxial deposition on Ru/Cu bilayers**

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**Mo.H-P07 - Tuning the magnetoimpedance response in NiFe/Cu/Co films through the magnetic interaction between ferromagnetic layers**

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**Mo.H-P08 - Optical and magneto-optical interactions in permalloy thin and ultrathin films on Si substrates**

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**Mo.H-P09 - Thickness dependence of the dynamic magnetic behavior in Permalloy films**

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**Mo.H-P12 - Experimental setup for investigation on magnetic thin layers by in-situ neutron reflectometry**

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**Mo.H-P13 - Magnetic Anisotropy in BiFeO3 PLD thin films deposited over Si substrates**

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**Mo.H-P15 - Giant magnetoresistance and Magnetic properties of epilayers-perovskite LBMTO**

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**Mo.H-P16 - Dependence of Curie temperature on the thickness of Pt layer in Co/Pt system**

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**Mo.H-P17 - Sputtered thin films of Ti substituted barium hexaferrite for miniaturized components of electronic devices in the microwave range**

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**Mo.H-P18 - Magnetic properties of irradiated $Co_2MnSi$ Heusler alloys**

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**Mo.H-P19 - Thickness dependent properties of Sr2FeMoO6 thin films grown on SrTiO3 and (LaAlO3)0.3(Sr2AlTaO6)0.7 substrates**

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**Mo.H-P20 - Defect induced enhanced low field magnetoresistance in Pr 0.6 Ca 0.4 MnO 3 thin films**

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**Mo.H-P21 - Laterally confined magnonic waveguide with ferroelectric load**

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**Mo.H-P22 - Magnetic waveguide arrays studied by brillouin light scattering**

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**Mo.H-P23 - Ion Irradiation Induced Relaxation of Tensile Strain and Change in Directionality of Magnetic Domains in $BaFeO_{3-\delta}$ Thin Films**

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**Mo.H-P25 - Strain induced magnetic anisotropy variation of $CoFe_2O_4$ films[§]**

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**Mo.H-P26 - Interlayer thickness dependence of the magnetic coupling in FePt multilayered dots**

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**Mo.H-P28 - Unusual anisotropic magnetoresistance in single crystalline Fe films and Pt/Fe bilayers**

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**Mo.H-P30 - Effects of the Layer Thickness on the Magnetic and Magneto-optical Properties of Sputtered and Annealed La0.66Sr0.34MnO3 Thin Films on Silicon**

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**Mo.H-P31 - Spin wave eigenmodes of Dzyaloshinskii domain walls**

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**Mo.H-P33 - Anomalous Hall Effect in antiferromagnetic Mn5Si3 films**

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**Mo.H-P34 - Proximity effects in Fe/Cr/Gd multilayers**

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**Mo.H-P35 - Formation of ordered antiferromagnetic phase NiFeMn under thermo-magnetic treatment of manganese-permalloy bilayers**

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**Mo.H-P36 - $CoFe_2O_4/Fe_3O_4$ superlattices; MBE growth and magnetic properties**

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**Mo.H-P37 - Modification of Interfacial Magnetism in Weakly Strained Manganite films**

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**Mo.H-P38 - Ferromagnetic and spin-wave resonances in multilayer nanogranular films [(Co40Fe40B20)X(SiO2)100-X/a -Si:H]n and [(Co40Fe40B20)X(-SiO2)100-X/SiO2]n**

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**Mo.H-P39 - Asymmetry in the Activity of Nucleation Centers in Ultrathin Pd/Co/Pd Trilayers**

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**Mo.H-P40 - Tunnel transport through SrMnO3 / La2/3Sr1/3MnO3 epitaxial bilayers investigated by CAFM.**

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**Mo.H-P42 - Magnetization boundary conditions at a ferromagnetic interface of finite thickness**

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**Mo.H-P43 - Thickness dependence of Gilbert damping of (Ru,MgO)/CoFeB/Ru trilayers**

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**Mo.H-P44 - Annealing effects in Co/Ni multilayers**

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**Mo.H-P45 - Transverse Kerr effect transformation of by normal metal film atop ferromagnetic metal surface**

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**Mo.H-P46 - Domain wall propagation in Co/Pt-wedge/Co film with perpendicular anisotropy**

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**Mo.H-P47 - Magnetic anisotropy field in amorphous alloy and thin film with composition Co67Fe4Mo1Si17B11: measurement by means of ferromagnetic resonance and low-field microwave absorption.**

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**Mo.H-P48 - The influence of deposit method on magnetic anisotropy field of CoFe2O4 thin films obtained by means of pulsed laser deposition.**

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**Mo.H-P49 - Electronic properties and magnetic moment distribution on perovskite type slabs**

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**Mo.H-P50 - Preparation and magnetic properties of $NiFe_2O_4$ / $ZnFe_2O_4$ bilayers**

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**Mo.H-P51 - Ferromagnetic-antiferromagnetic transition in [001]-oriented L10 FeMnPt films**

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**Mo.H-P52 - Epitaxially Textured PCMO Thin Films Under Considerably Low Substrate Temperature**

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**Mo.H-P53 - Electrical, structural and morphological properties of epitaxially-grown Cr100-x Cox alloy films**

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**Mo.H-P54 - Tunneling anisotropic magnetoresistance in oxide heterostructures**

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**Mo.H-P55 - Magnetotransport properties and morphology of epitaxial Fe/MgO granular multilayers**

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**Mo.H-P56 - In-situ neutron reflectometry during thin film growth by sputter deposition**

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**Mo.H-P57 - Influence of strain on the magnetic properties of LaMnO3 thin films**

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**Mo.H-P58 - Probing short range order mediated tunable spontaneous magnetization in Zn0.95Co0.05O epitaxial films by x-ray absorption**

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**Mo.H-P61 - Study of dynamic and static magnetic properties of inverse opal-like structures based on Co and Ni**

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**Mo.H-P62 - Comparison of FORC Results Obtained on L10 FeCuPt Measured by Three Different Methods**

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**Mo.H-P63 - Up-scaling strained, increased coercivity [Fe-Co/Au-Cu]$_n$ multilayers, towards Rare Earth free Permanent Magnets applications**

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**Mo.H-P64 - Anomalous change and development of anisotropic residual stress at the initial stage of FeCo film growth**

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**Mo.H-P65 - Electrical control of magnetism in Heusler alloy $Co_2FeAl_{0.5}Si_{0.5}$ at room temperature**

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**Mo.H-P66 - Anisotropic magnetoresistance of Heusler-type half-metal ferromagnet and antiferromagnet bilayer thin films**

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**Mo.H-P67 - Thermally activated diffusion in Cu/Co/IrMn/Pt multilayers investigated by atom probe tomography**

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**Mo.H-P69 - The resistive switching and magnetic properties of CuO and Cu2O films deposited by magnetron sputtering CuO target**

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**Mo.H-P70 - Probing uncommensurated magnetic structures in thin films with GISANS**

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**Mo.H-P71 - Magnetic and dielectric properties of hexagonal $ErFeO_3$ thin film**

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**Mo.H-P72 - Electronic and magnetic structures of vanadium phthalocyanine monolayer and multilayer films prepared on Ag(111)**

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**Mo.H-P74 - Formation of $L1_0$ phase by rapid thermal annealing for sputtered FeNi thin films**

M. Mizuguchi[1], T. Tashiro[1], K. Sato[1], T. Konno[1], K. Takanashi[1]
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**Mo.H-P75 - Strain-induced spin reorientation of bcc-like iron films grown on Cu(001)**

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**Mo.H-P76 - Influence of elastically pinned domain walls on magnetization reversal in multiferroic heterostructures**

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**Mo.H-P77 - Temperature dependence of magnon contribution to resistivity in permalloy thin films**

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**Mo.H-P78 - Optical and Magneto-optical Spectroscopy of partially ordered $Co_2MnSi$**

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**Mo.H-P79 - Crystal structure changes and interfacial mixing in Co/Si thin films investigated by Ferromagnetic Nuclear Resonance**

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**Mo.H-P80 - Multifunctional Fe-Au heterogeneous thin-films**

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**Mo.H-P81 - Scanning SQUID-on-tip microscopy with single spin sensitivity for the study of magnetic materials**

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**Mo.H-P82 - Magnetic properties changes in ion beam irradiated Fe/Pt multilayers**

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**Mo.H-P83 - Interplay between interparticle interactions and particles' anisotropy in magnetic granular multilayers**

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**Mo.H-P84 - Cationic distribution and anomalous magnetic properties of epitaxial $CoFe_2O_4$ thin films probed by x-ray magnetic circular dichroism**

V. Hari Babu[1], P. Gargiani[1], M. Valvidares[1], E. Pellegrin[1], F. Sánchez[2], G. Herranz[2], J. Fontcuberta[2]
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**Mo.H-P85 - Magnetic properties of surfactant assisted grown ultrathin Cr films on Fe(001)**

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**Mo.H-P86 - Geometrical effects on Barkhausen noise in a thin film**

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**Mo.H-P87 - Suppression of Barkhausen noise mediated by collapse of the domain state due to strong inter-layer exchange bias**

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**Mo.H-P88 - Atomistic studies of domain wall dynamics in Co/Ni multilayers interfaced with heavy metal layers**

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**Mo.H-P89 - Heusler ferrimagnetic multilayers with a perpendicular magnetic anisotropy**

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**Mo.H-P90 - Magneto-structural characterization and local probing of inhomogeneity effects on NI-MN-GA thin films**

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**Mo.H-P91 - Tailoring of Gilbert damping constant and magnetic anisotropy of $Co_{20}Fe_{60}B_{20}$ thin films by excess Cobalt incorporation**

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**Mo.H-P92 - Influence of substituting Te for S on magnetization of EuS thin films**

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**Mo.H-P94 - Structural and magnetic properties of (ultra)thin LaSrMnO films**

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**Mo.H-P95 - Onset of in-plane ferromagnetism and magnetic anisotropy of MBE-deposited Fe films on MOCVD GaN(0001)**

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**Mo.H-P96 - Structural and magnetic properties of epitaxial Fe/MgO/GaN(0001) heterostructures deposited by molecular beam epitaxy**

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**Mo.H-P98 - Magnetic properties of DyCo5 and YCo5 amorphous alloys**

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**Mo.H-P99 - Origin of Anisotropic Giant Magnetoresistance in magnetic nanostructures**

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**Mo.H-P100 - Fe Layer Induced Ferromagnetism in Pd: An *In-Situ* Polarised Neutron Reflectometry Study**

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**Mo.H-P101 - MAGNETIC PROPERTIES OF Fe-N THIN FILMS**

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**Mo.H-P102 - Tantalium-mediated Epitaxial Crystallization of $Fe_3O_4$ Films**

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**Mo.H-P103 - Seed layer improvements to multilayer Giant Magnetoresistance thin-films through the use of polarized neutron reflectometry**

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**Mo.H-P105 - The effect of Ta buffer layer on the microstructure, roughness and dead layer of CoFeB/MgO systems**

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**Mo.H-P106 - Growth and characterisation studies of the metamagnet Eu3O4 Thin Films Grown on Si and Graphene**

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**Mo.H-P107 - Thermal cycling on the magnetostructural transition on thin film of $Gd_5Si_{1.3}Ge_{2.7}$**

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**Mo.H-P108 - Magnetic percolation in Co/Ag multilayers grown by molecular beam epitaxy**

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I. Exchange bias and exchange springs

**Mo.I-P01 - Influence of the seed layer on the exchange spring coupling of the NiFe/IrMn/Co trilayer**

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**Mo.I-P02 - Exchange bias induced at a Co2FeAl0.5Si0.5 /Cr interface**

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**Mo.I-P04 - Independently tuning the interfacial and bulk contributions to exchange bias for ferromagnetic / (antiferromagnetic) thin films with (IrMn/Pt/FeMn) based composite antiferromagnets**

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**Mo.I-P05 - Exchange bias in Co/CoO nanocaps and nanoislands**

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**Mo.I-P06 - Exchange bias of epitaxially grown $Ni_2MnAl$/X bilayer (X: Fe, Co, $Co_2MnSi$)**

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**Mo.I-P07 - Tuning structures and magnetism of NiFe/Cr-oxide bilayers via ion-beam bombardment and annealing**

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**Mo.I-P08 - Dependence of the interfacial coupling in FeMn/NiFe/Cu/Co spin valves on the thickness of the Cu spacer**

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**Mo.I-P09 - Photo-control of exchange bias in BiFeO3/La2/3Sr1/3MnO3 thin films**

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**Mo.I-P10 - Angular dependent FORC studies on FeMn/Co exchange bias systems utilizing the magneto-optical Kerr effect**

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**Mo.I-P11 - Hard-soft magnetic composites prepared by wet-chemical method followed by Spark Plasma Sintering**

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**Mo.I-P12 - Hybrid exchange-biased core@shell nanoparticles through the growth of polymer brushes : Synthesis, assembly and study of their magnetic properties**

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**Mo.I-P13 - Magnetic anisotropies of core-shell ferrite nanoparticles**

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**Mo.I-P15 - Magnetization enhancement through exchange-coupling in CoFe2O4/CoFe2 Nanocomposites**

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**Mo.I-P16 - Negative rotatable anisotropy as a signature of antiparallel interface exchange coupling in exchange bias systems**

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**Mo.I-P17 - Exchange bias effect in multilayers of NiFe/IrMn/Ta**

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**Mo.I-P18 - Spring-magnet behaviour in annealed $Fe_{64}Pd_{36}$ thin films: exchange coupling between coexistent soft α-Fe and hard $L1_0$ FePd magnetic phases**

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**Mo.I-P22 - Room temperature metastable behavior of exchange bias systems**

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**Mo.I-P23 - Electric field effect in CoFeB/NiO exchange coupled system**

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**Mo.I-P24 - Direct observation of controllable exchange bias configurations in Ni/FeF2 nanostructures**

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**Mo.I-P25 - Facile synthesis and exchange-bias in FeO/gamma-Fe2O3 core/shell nanoparticles**

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**Mo.I-P26 - Effects of short post-deposition heat treatment on structure and exchange bias in sputtered FeNi/FeMn system**

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**Mo.I-P27 - "Dependence of the exchange bias blocking temperature on the thickness of antiferromagnetic layer in the trilayered Si/Ta/NiFe/IrMn/NiFe/Ta thin-films"**

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**Mo.I-P28 - Exchange Bias down to the sub-nanometer regime**

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**Mo.I-P29 - The role of shape and interface roughness in the exchange bias effect in core-shell magnetic nanoparticles**

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**Mo.I-P30 - Exchange bias effect in hybrid magnetic nanoparticles**

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**Mo.I-P31 - Probing the exchange bias training effect at the interface using XMCD**

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**Mo.I-P32 - Comparison between a concentrated and a diluted superspin systems**

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**Mo.I-P33 - Modeling of the exchange bias behavior of Bi-Magnetic Nanoparticle assemblies**

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**Mo.I-P34 - Hysteresis properties of exchange coupled Fe-Ni/Tb-Co bilayers separated by ultrathin Ti spacer**

N. Kulesh[1], K. Balymov[1], O. Adanakova[1], A. Svalov[1], V. Vas'kovskiy[1]
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**Mo.I-P35 - Interface exchange coupling in a CoPt/NiO bilayer**

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**Mo.I-P36 - Exchange bias Study of Ni50.3Mn36.9Sb12.8/BiFeO3 heterostructures fabricated by magnetron sputtering**

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**Mo.I-P37 - Interfacial coupling induced symmetry-breaking of spin-orbit interaction in exchange biased systems**

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**Mo.I-P38 - Modeling the exchange bias interaction in ferromagnetic/antiferromagnetic films and nanostructures**

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**Mo.I-P39 - Spin flop transitions in exchange-biased structures**

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**Mo.I-P40 - Magnetothermal behavior of the antiferromagnet in exchange-coupled NiFe/IrMn bilayers**

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**Mo.I-P41 - Pressure effect on ferromagnetism and exchange bias in phase-separated (Bi,Ca)$Mn_{1-x}Ru_xO_3$ manganites**

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J.Theory and modeling

**Mo.J-P01 - Full-potential KKR calculations for lattice distortion of point defects in al, based on the generalized-gradient approximation**

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**Mo.J-P02 - Magnetism of 4d clusters compared to magnetism of 3d clusters: ab-initio study of free Rh and Fe clusters**

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**Mo.J-P03 - On the edge magnetism and energy gaps in graphenelike nanoribbons**

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**Mo.J-P04 - Control of domain wall thickness by introducing spatial modulation of uniaxial anisotropy and exchange stiffness parameters**

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**Mo.J-P05 - Imprinting skyrmions in thin films by ferromagnetic and superconducting templates**

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**Mo.J-P08 - Magnetization processes of CoPt antidot arrays**

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**Mo.J-P09 - First-principles calculations of the spin coupling between lanthanide adatoms and iron islands**

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**Mo.J-P10 - A Methodology Study of the Hysteresis Loops by Monte Carlo Simulation**

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**Mo.J-P12 - Micromagnetic study of inverse opal-like structures which exhibit spin ice behavior**

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**Mo.J-P13 - Roles of grain boundaries in the coercivity of magnetic thin films investigated by a two-dimensional Ginzburg-Landau model**

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**Mo.J-P14 - Laser heating and thermal stresses in the core-shell nanowires**

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**Mo.J-P15 - Micromagnetic modelling of a magnetic nanoparticle including surface effects.**

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**Mo.J-P16 - Temperature-dependent exchange stiffness and domain wall width in hcp Co**

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**Mo.J-P18 - Magnetic reversal modes in multisegmented nanowire arrays with long aspect ratio**

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**Mo.J-P19 - Noise-induced effective potential for analisys of switching in spin-valves**

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**Mo.J-P20 - Anaysis of fast precessional switching in nanomagnets subject to hard-axis field pulses**

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**Mo.J-P21 - Chaotic assisted switching of magnetic spin-valves**

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**Mo.J-P22 - Thermal stability and the size- and field-dependence of chiral profiles in ferromagnetic nanoparticles**

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K. Magnetic nanodots, nanowires and nanotubes

**Mo.K-P03 - Magnetocaloric functional properties of $Sm_{0.6}Sr_{0.4}MnO_3$ manganite due to advanced nanostructured morphology**

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**Mo.K-P04 - Vortex-state Permalloy nanodisks prepared by Colloidal Lithography for Biomedical Applications**
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**Mo.K-P05 - Skyrmion state stability in magnetic nanodots with perpendicular anisotropy**
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**Mo.K-P06 - Instability thresholds for quantized spin waves in ferromagnetic nanowires under microwave pumping**
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**Mo.K-P07 - Quantification of nanowire uptake by living cells**
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**Mo.K-P08 - Magnetization reversal and domain wall motion in magnetic nanotubes**
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**Mo.K-P09 - Aging effects on magnetic vanadium oxide nanotubes**

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**Mo.K-P10 - Magnetite Nanotubes and Nanorods: Microstructures and Magnetism**

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**Mo.K-P11 - Influence of dipolar interactions on the magnetic states and hysteresis of ferromagnetic single-wall zigzag nanotubes**

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**Mo.K-P12 - Controllable switching of transverse domain wall polarity in ferromagnetic planar nanowires: A prototype of 2 bits nonvolatile memory cell**

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**Mo.K-P15 - Time-dependent factorial cumulants in quantum dots coupled to ferromagnetic leads**

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**Mo.K-P16 - Magnetization reversal of thin iron nanowires grown by focused-electron-beam-induced deposition**

L. A. Rodríguez[1,2], L. Deen[1,3], R. Córdoba[1,3], C. Magén [1,4], E. Snoeck[2], B. Koopmans[3], J. M. De Teresa[1,5]
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**Mo.K-P17 - Three-dimensional magnetic nanowires grown by focused-electron-beam-induced deposition**

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**Mo.K-P20 - Magnetic properties of iron oxide nanotubes: Influence of the diameter of the nanotubes**

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**Mo.K-P21 - Temperature dependent magnetic properties of ni nanotube arrays**

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**Mo.K-P22 - Skyrmion modes excitations and their hybridization induced by spin Hall effect spin torque**

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**Mo.K-P23 - Domain Wall Dynamics in Parabolic Wire**

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**Mo.K-P24 - Magnetic properties of nanostructured CoNiFe-B alloy prepared by electroless plating**

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**Mo.K-P25 - Control of Domain Wall Nucleation in Cylindrical Nanowires**

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**Mo.K-P26 - Identification and motion of magnetic domain walls in cylindrical nanowires**

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**Mo.K-P27 - Magnetic properties of hexagonally ordered nanowire and nanotube arrays**

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**Mo.K-P28 - Magnetic domain structure in epitaxial FeGa/MgO(001) wires**

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**Mo.K-P29 - Domain Wall annihilation via Phase Correction in Cylindrical Nanowires**

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**Mo.K-P30 - Mechanism of magnetic switching in rapidly solidified amorphous nanowires**

T. Ovari[1], C. Rotarescu[1], A. Atitoaie[1], H. Chiriac[1]
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**Mo.K-P31 - Manipulation of the magnetization reversal in ferromagnetic nanostructures grown by Focused Electron Beam Induced Deposition**

R. Córdoba[1], D. Han[1], B. Koopmans[1]
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**Mo.K-P33 - Thermodynamic properties of anisotropic triangular lattices obtained from finite-temperature exact-diagonalization**

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L. Materials for Energy applications

**Mo.L-P01 - Magneto-mechanical property of the $Fe_{55}Co_{17}Ga_{28}$ alloy**

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**Mo.L-P02 - Magnetocaloric effect studies on MnSb and $MnSbR_{0.05}$ (R: Nd, Er)**

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**Mo.L-P03 - Peculiarities of giant magnetocaloric effect in Ni50Mn35In15 alloys in the vicinity of martensitic transition**

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**Mo.L-P04 - Effect of strontium deficiency on structural, magnetic and magnetocaloric properties of $La_{0.65}Eu_{0.05}Sr_{0.3-x}MnO_3$ ($0 \leq x \leq 0.15$) manganite**

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**Mo.L-P05 - Theoretical investigation of the coupling between the electrocaloric and magnetocaloric effects in quantum paraeletric $EuTiO_3$**

P. V. Ranke[1], P. Ribeiro[1], A. Carvalho[2], B. Alho[1], T. Alvarenga[1], E. Nobrega[1], A. Caldas[1], V. Sousa[1]N, P. Lopes[1], N. Oliveira[1]
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**Mo.L-P07 - Giant reversible rotating magnetocaloric effect in $KEr(MoO_4)_2$**

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**Mo.L-P08 - KINETICS OF PHASE TRANSITIONS IN MAGNETOCALORIC MATERIALS**

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**Mo.L-P11 - Enhancement of Thermal Stability and Soft Magnetic Properties of High Induction (Fe(1-x)Cox)79Si8.5B8.5Nb3Cu1 (x= 0,0.05, 0.35) Nanocrystalline Alloys**

R. K. Roy[1], A. K. Panda[1], A. Mitra[1]
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**Mo.L-P12 - Structural and magnetic characterization of CoNiA and CoNiGa pseudo-Heusler superelastic alloys**

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**Mo.L-P13 - A new method for determining the Curie temperature from magnetocaloric measurements**

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**Mo.L-P14 - Analysis of the field dependence of magnetocaloric effect at the transition temperatures for biphasic systems**

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**Mo.L-P15 - Study of Magnetocaloric Effect in the Pseudo Binary Laves-Phase Compounds**

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**Mo.L-P16 - Shedding light on first-order magnetostructural transitions**

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**Mo.L-P17 - Giant irreversible inverse and large reversible magnetocaloric effect in (Dy0.6Gd0.4)5Pd2 intermetallic compound**

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**Mo.L-P18 - Magnetic investigation on $MnNiGe_{0.9}Al_{0.1}$ alloy**

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**Mo.L-P19 - Influence of high pressure oxygenation on the structure and magnetic properties of la-ca-sr-mn-o perovskite ceramic material**

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**Mo.L-P20 - Structural, optical and magneto-optical studies of martensitic tansformation in magnetic shape memory alloy Ni2MnGa**

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**Mo.L-P23 - Magnetic and magnetothermal properties of the melt-spun $(Gd_{1-x}Tb_x)_{75}Co_{25}$ and $(Gd_{1-x}Y_x)_{75}Co_{25}$ alloys**

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**Mo.L-P24 - Magnetic behaviour of martensite in metamagnetic Ni-Co-Mn-Ga alloys**

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**Mo.L-P25 - Rotational Electromagnetic Energy Harvesting System**

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**Mo.L-P26 - Comparison of conventional sintering and spark plasma sintering routes for the fabrication of magnetocaloric Mn-Fe-P-Si compounds**

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**Mo.L-P27 - Pressure induced magnetic and magnetocaloric properties in Mn rich Mn-Ni-Sn Heusler alloys**

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**Mo.L-P28 - Enhancement of coercivity through Nd-Cu eutectic reaction for Nd-Fe-B thin films**

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**Mo.L-P29 - Microstructural control of Nd-Fe-B materials sintered using electric Field Assisted Sintering Techniques (FAST)**

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**Mo.L-P31 - The magnetic properties and magnetocaloric effect in Mn1-xNiX-CoGe**

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**Mo.L-P32 - Direct and inverse thermal magnetocaloric effect obtained from non-adiabatic measurements: $Gd_{0.5}Pr_{0.5}Al_2$ compound case**

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**Mo.L-P33 - Giant Magnetic Entropy Change in $La_{0.6}Ce_{0.4}Fe_{11.5}Si_{1.5}$ Alloy Exhibiting First- and Second-Order Phase Transitions**

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**Mo.L-P35 - 3D nano-architectured multiferroic CuO electrodes for high-performance supercapacitors**
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**Mo.L-P37 - Direct measurements of the crucial characteristics of MCE refrigeration in high magnetic fields in a Gd sample**
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**Mo.L-P39 - Magnetocaloric effect of La(Fe,Si,Co)13 compounds as measured in pulsed magnetic fields**
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**Mo.L-P40 - Influence of structural disorder on normal and inverse magnetocaloric effect in Y1-xGdxCo2 (0 ≤ x ≤ 1) compounds**
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**Mo.L-P41 - Origin of martensitic phase transition in ferromagnetic shape memory alloy Ni-Fe(Co)-Ga thin film**
K. Sumida [1], K. Shirai [1], S. Zhu [1], M. Taniguchi [1,2], M. Ye [3], S. Ueda [4], Y. Takeda [5], Y. Saitoh [5], I. Rodriguez [6], J. Barandiaran [6]
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**Mo.L-P42 - The magnetic and magnetocaloric properties of CoMnGe$_1$-xGaxB$_{0.015}$**

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**Mo.L-P43 - The Effect of the Substitution of Cu and Al for Mn on Magnetic and Magnetocaloric Properties of $Ni_{50}Mn_{34}In_{16}$**

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**Mo.L-P44 - Visualization of crack evolution in field cycled $LaFe_{11.8}Si_{1.2}$**

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**Mo.L-P45 - Magnetic properties of magnetostrictive galfenol nanowires**

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**Mo.L-P47 - Effects of pressure on the magnetic, structural, and Griffiths-like transitions in magnetocaloric R5(SixGe$_1$-x)4 (R= Tb and Dy)**

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**Mo.L-P48 - Experimental investigation and FEM simulation of epoxy-bonded magnetocaloric composites**

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**Mo.L-P49 - Magnetocaloric properties of purified Gd: assessing structural and impurity aspects**

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**Mo.L-P51 - Effect of Fe substitution on $Ni_{50}Mn_{35}In_{15}$ Heusler alloys**

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**Mo.L-P52 - Structural and magnetic properties of $FeRh_{1-x}Co_x$**

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**Mo.L-P53 - Magnetocaloric effect in Ni-Fe-Ga-Co-Al Heusler alloys**

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**Mo.L-P54 - Magnetic properties of soft magnetic thin ribbons prepared by an electroplating method**

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**Mo.L-P55 - A new method for maximizing magnetic refrigeration efficiency in antiferromagnets**

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**Mo.L-P56 - Mechanical and corrosion properties of La(Fe,Si)13 for magnetic refrigeration technology**

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**Mo.L-P57 - EBSD analysis of {111}-Conjugated Interfaces in Mn-Al-C permanent magnetic materials**

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**Mo.L-P58 - Influence of Nb content on high temperature magnetic properties of FeCo based high induction alloys**

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**Mo.L-P59 - Magnetocaloric effect and Magnetothermopower in $Pr_{0.5}Sr_{0.5}MnO_3$**

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**Mo.L-P60 - Enhanced electrical resistivity after rapid cool of the specimens in layered oxide LixCoO2**

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**Mo.L-P61 - Effect of the induced internal stresses on the martensitic transition and magnetic properties of Ni-Mn-Ga glass-coated microwires**

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**Mo.L-P62 - Influence of Pr substitution for La on the structural, magnetic and magnetocaloric properties of (La1-xPrx)2/3Ba1/3MnO3 manganites**

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**Mo.L-P63 - Study of the magnetocaloric effect in (Pr,Dy)2Fe17 and Pr2(Fe,Al)17 intermetallic compounds**

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**Mo.L-P64 - Large magnetocaloric effect and magnetic properties in ErCoAl**

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**Mo.L-P65 - New synthetic route for HoN particles as magnetic refrigerant in hydrogen re-liquefaction system**

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**Mo.L-P66 - Field-induced Martensitic Transformation in $MnCo_{0.92}Fe_{0.08}Ge$**

K. Ozono [1], Y. Mitsui [1], R. Umetsu [2], K. Takahashi [2], M. Hiroi [1], K. Koyama [1]
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**Mo.L-P67 - Effect of Mn-deficient on magnetocaloric effect in non-stoichiometric $La_{0.8}Ca_{0.2}MnO_{3+\delta}$**

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**Mo.L-P68 - Critical exponents and EXAFS study of Non-stoichiometric $Nd_{0.5}Sr_{0.5}MnO_3$ Single Crystalline**

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**Mo.L-P69 - Investigation of Structural, Magnetic and Magnetocaloric Properties of (La1-xPrx)0.85Ag0.15MnO3 (x = 0.0, 0.2) Perovskites**

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**Mo.L-P70 - Relaxation dynamics across the first-order metamagnetic phase transition in magnetocaloric La(Fe,Mn,Si)13**

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**Mo.L-P71 - Temperature dependence of the electrical resistivity for the Heusler alloy system $Ni_2Mn_1$-xCrxGa**

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**Mo.L-P72 - Magnetic structure and magnetocaloric properties of $Ho(Co_{1-x}Fe_x)_2$ quasibinary intermetallic compounds**

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**Mo.L-P73 - Hydrogen-induced magnetic anisotropy and magnetocaloric effect in SmFeCo**

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**Mo.L-P74 - Specific heat, magnetostriction and magnetocaloric effect in $Fe_{48}Rh_{52}$ alloy**

A. Aliev [1], A. Batdalov [1], L. Khanov [1], A. Kamantsev [2], E. Dilmieva [2], A. Mashirov [2], V. Koledov [2], V. Shavrov [2], M. Topic [2]
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**Mo.L-P75 - Predictions of large magnetocaloric effects in Co- and Cr-substituted Heusler alloys using first-principles and Monte Carlo approaches**

V. Sokolovskiy [1], V. Buchelnikov [1], M. Gruner [2], P. Entel [2]
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**Mo.L-P76 - Direct measurements of the low-field magnetocaloric effect in low volume and thin film samples**

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**Mo.L-P77 - Phase transformations and magnetocaloric effect in Ni-Mn-(Co)-In Heusler alloys**

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**Mo.L-P78 - MAGNETIC and structural analysis of MN rich MN-NI-SN alloys**

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**Mo.L-P79 - The effects of hydrogenation and Mn doping on the first order nature of the metamagnetic transition in La(Fe,Si)$_{13}$**

M. Bratko [1], Y, E. Lovell [1] N, J. Turcaud [1] N, D. Caplin [1] N, L.F. Cohen [1] N, V. Basso [2] N, M. Kupferling [2] N, C. Curcio [2] N, C. Bennati [2] N, A. Barzca [3] N
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**Mo.L-P80 - Magnetocaloric effect in Gd - Y alloys**

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**Mo.L-P81 - Thermal and rheological properties of water based ferrofluids and their applicability as quenching media**

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**Mo.L-P82 - Two Dumbbell-shaped $M_5Gd_4$ Herterometallic Clusters exhibiting well magnetocaloric effect**

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**Mo.L-P83 - Direct measurements of giant adiabatic temperature change in FeRh alloys under cyclic conditions**

A. Chirkova [1], K.P. Skokov [2], T. Gottschall [2], O. Gutfleisch [2], L. Schultz [1], N.V. Baranov [3,4], T.G. Woodcock [1]
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**Mo.L-P84 - $(Mn_{55}Al_{45})_{100}B_2$ and $Mn_{55}Al_{45}Ga_5$ - promising permanent magnetic materials**

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**Mo.L-P85 - Ab-initio based analytical evaluation of entropy in magnetocaloric materials with first order phase transitions**

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**Mo.L-P88 - Ferrites in the low-power wireless power transfer systems**

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**Mo.L-P89 - Magnetocaloric effect in some magnetic materials in alternating magnetic fields**

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**Mo.L-P90 - Anodic iron oxide nanotubes: Structural and magnetic characterization**

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**Mo.L-P92 - Influence of quenching and heat-treatment parameters on the antiferromagnetic-ferromagnetic phase transitions in $Fe_{49}Rh_{51}$ alloys**

V. Rodionov [1], V. Rodionova [1], S. Shevyrtalov [1], M. Annaorazov [1]
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**Mo.L-P93 - Ni-Mn-Sn-Co metamagnetic shape memory thin films**

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A. Ferroics and Multiferroics

**TU.A-P01 - Magneto-electric coupling, magnetoreistance and magnetocaloric effect in Ba rich quantum paraelectrics : $Eu_{0.4}Ba_{0.6}TiO_3$**

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**TU.A-P03 - Photostriction in multiferroic $BiFeO_3$**

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**TU.A-P07 - Physical properties of Single Crystals of A-site ordered manganites $REBaMn_2O_6$ (RE = rear earth)**

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**TU.A-P08 - Structural and physical properties of multiferroic $Bi_{1-x}RE_xFeO_3$ powders (RE = $Nd^{3+}$, $Eu^{3+}$) synthesized by the sol-gel method**

T. Slimani Tlemþani [1], T. El Bahraoui [1], M. Taibi [2], G. Schmerber [3], A. Belayachi [1], M. Abd-Lefdil [1], A. Dinia [3]
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**TU.A-P09 - Magnetic properties of the $CaBaCo_3FeO_7$**

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**TU.A-P10 - Metamagnetic transitions in $R_2CoMnO_6$ (R=Yb, Lu) magnetoelectric double perovskites**

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**TU.A-P11 - Optical activity in multiferroic ferroborate**

A.M. Kuzmenko [2], A. Shuvaev [1], V. Dziom [1], A. Pimenov [1], M. Schiebl [1], A.A. Mukhin [2], V.Y. Ivanov [2], L.N. Bezmaternykh [3], A. Pimenov [1]

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**TU.A-P12 - Giant Magnetoelectric Effect in FeCo and FeCo/Ag films on (011) oriented PIN-PMN-PT**

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**TU.A-P13 - Role of Tb single ion Ising-nature on the magnetic anisotropy on $TbMnO_3$ under applied magnetic fields**

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**TU.A-P14 - Theoretical prediction of spin-valley coupling in 5d transition-metal oxides**

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**TU.A-P15 - Crossover from paramagnetism to superparamagnetism in zinc ferrite nanoparticles: X-Ray Absorprtion Spectroscopy study**

S. Gautam [1], J. Pal Singh [2], R.C. Srivastva [3], K. Asokan [4], D. Kanjilal [4], K. Hwa Chae [2]

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**TU.A-P16 - Charge ordering, Ferroelectric, and Magnetic Domains in LuFe2O4 Observed by Scanning Probe Microscopy**

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**TU.A-P17 - Polarization modulation induced by a magnetic field in polar oxide alpha-$Cu_2V_2O_7$**

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**TU.A-P18 - The magnetic properties of $SrCo_2Ti_2Fe_8O_{19}$ compound**

M. Mihalik [1], M. Mihalik [1], M. Zentková [1], V. Eremenko [2], V. Sirenko [2], A. Mikhailovich Balbashov [3]
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**TU.A-P19 - Magnetic and magnetodielectric behavior of $GdCrTiO_5$ and its implications**

T. Basu [1], K. Singh [1], K.K. Iyer [1], E.V. Sampathkumaran [1]
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**TU.A-P20 - Magnetic ordering in multiferroics $Ba(Fe,Nb)O_3$ AND $Pb(Fe,Nb)O_3$ observed by míssbauer spectrometry**

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**TU.A-P21 - Anisotropic orbital occupation and Jahn-Teller distortion of orthorhombic YMnO3 epitaxial films: a combined experimental and theoretical study on polarization-dependent x-ray absorption spectroscopy**

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**TU.A-P22 - Uniaxial-stress control of spin-driven ferroelectricity in multiferroic $Ba_2CoGe_2O_7$**

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**TU.A-P23 - Evolution of magnetic and crystallographic transition in $Cu_{1-x}ZnxFe_2O_4$ studied by neutron powder diffraction**

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**TU.A-P24 - Strain-induced multiferroicity in antiferromagnetic $SrMnO_3$ thin films**

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**TU.A-P26 - Pseudocubic phase stabilization of epitaxial (Sr1-xBax)MnO3 thin films**

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**TU.A-P27 - Electric Control of the Local Magnetic Moment in Multiferroic Compound $Ba_2CoGe_2O_7$**

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**TU.A-P28 - Tunable metamagnetic transitions in a mixed-valent ferromagnet**

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**TU.A-P29 - Strong ferromagnetic-dielectric coupling in multiferroic $Lu_2CoMnO_6$ single crystals**

N. Lee [1], H.Y. Choi [1], Y.J. Jo [2], M.S. Seo [3], S.Y. Park [3], Y.J. Choi [1]
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**TU.A-P30 - Key features of the magnetic and magnetoelectric properties of rare-earth multiferroic $HoFe_3(BO_3)_4$**

Y.F. Popov [1], A.I. Popov [2,3], G.P. Vorob'ev [1], V.Y. Ivanov [4], A.A. Mukhin [4], N. Kostyuchenko [2,4], A.K. Zvezdin [2,4]
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**TU.A-P33 - Large low field room temperature magneto-dielectric response from $(Sr_{0.5}Ba_{0.5})Nb_2O_6$ / $Co(Cr_{0.4}Fe_{1.6})O_4$ bulk 3-0 composites**

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**TU.A-P34 - Effect of magnetic and non-magnetic substitution on properties of magnetoelectric $Ba_3NbFe_3Si_2O_{14}$**

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**TU.A-P35 - Magnetoelectric properties of two-phase composite system $Cu_{0.6}Zn_{0.4}Fe_2O_4$/ $BaTiO_3$ prepared by high energy ball milling technique**

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**TU.A-P36 - Reversible spin ordering transition by an electric field near a multiferroic triple phase point**

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**TU.A-P37 - XANES: A probing tool for mixed valence, modified magnetism**

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**TU.A-P38 - A comparison in multiferroic coupling between triangular lattice polytypes of hexagonal and rhombohedral AgFeO2**

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**TU.A-P39 - Negative magneto-dielectric coupling in ceramic multiferroic $Co_3TeO_6$**

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**TU.A-P40 - Magnetoelectric effect in diamagnetic sillenites**

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**TU.A-P41 - Cone□Planar□Uniaxial transitions in $Sr_{(3-x)}Ba_xCo_2Fe_{24}O_{41}$ multiferroics**

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**TU.A-P42 - Magnetodielectric frequency behavior in nanoparticulated BTO-CFO multiferroic composites**

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**TU.A-P43 - Magnetic and magnetoelectric dynamical Mn/rare-earth coupling in $RMnO_3$ multiferroics**

V. Simonet [1], L. Chaix [2], S. deBrion [1], X. Fabrèges [3], S. Petit [3], R. Ballou [1], A. Cano [4], L.P. Regnault [5] ,E. Ressouche [5], J. Ollivier [2]

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**TU.A-P44 - Effects of in-plane strain on charge/orbital ordering in $La_{0.5}Ca_{0.5}MnO_3$ thin films**

J.Y. Juang [1], J.W. Mi [1], T. Tsai [1], Y.F. Hsiao [1], Y.W. Jiang [1], Y.M. Chang [1], C.W. Luo [1], K.H. Wu [1], J.Y. Lin [2], T.M. Uen [1]

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**TU.A-P45 - Direct observation of polar state in multiferroic $(Sr_{1-x}Ba_x)MnO_3$**

R. Guzman [1], E. Langenberg [2], L. Maurel [2,3], P.A. Algarabel [3,4], J.A. Pardo [2,5], C. Magen [1,2,6]

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**TU.A-P46 - Unravelling the basic mechanisms in magnetoelectric $TbMn_{1-x}Fe_xO_3$ system**

M. Mihalik [1], M. Mihalik [1], M. Zentková [1], M. Vavra [1,2], D. Passos [3], R. Vilarinho [3], D. Mota [3], A. Almeida [3], A. Moreira [3], P. Tavares [4]
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**TU.A-P47 - Single-crystal growth and magnetic properties of multiferroic triangular-lattice antiferromagnet 3R-$AgFeO_2$ and alpha-$NaFeO_2$**

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**TU.A-P49 - Effect of partial substitution of of $Fe^{3+}$ with $Al^{3+}$ on the magnetic and dielectric properties of Z-type hexaferrite, $Sr_3Co_2Fe_{24}O_{41}$**

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**TU.A-P50 - Magnetostriction of $Cu_3Mo_2O_9$ under the pulsed magnetic fields**

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**TU.A-P52 - Multiferroic properties of $(Cu,Zn)_3(Mo,W)_2O_9$**

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**TU.A-P53 - Muon-spin rotation in multiferroic $Cu_3Mo_2O_9$ under electric fields**

H. Kuroe [1], H. Kuwahara [1], T. Sekine [1], I. Watanabe [2], A.R. Raselli [3], M. Elender [3], P.K. Biswas [3], M. Hase [4], K. Oka [5], T. Ito [5]
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**TU.A-P54 - Interplay between electronic correlation and charge transport properties of self-doped multiferroic oxides $CuCr_{1-x}O_2$ (0 < x < 0.1)**

D.C. Ling [1], S.B. Singh [1], L.T. Yang [1], Y.F. Wang [1], Y.C. Shao [1], C.W. Chiang [1], K.T. Lin [1], W.F. Pong [1]

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**TU.A-P55 - Oxygen vacancy mediation of magnetoelectric coupling in W-type strontium hexaferrites doped with $Ce^3$+ ion**

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**TU.A-P56 - Structural and magnetic properties of M-type $Sr_{1-x}MgxFe_{12}O_{19}$**

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**TU.A-P57 - Magnetic and Magneto-optical properties of films of multiferroic $GdMnO_3$ grown on $SrTiO_3$ (100) and LSAT (100) and (111)**

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**TU.A-P58 - Anisotropy, Magnetostriction and Inverse Magnetoelectric effect in Dy substituted Ni Ferrite**

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**TU.A-P59 - 'One-way transparency of light' in multiferroic $CuB_2O_4$**

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**TU.A-P60 - 'One-way transparency of light' in multiferroic $CuB_2O_4$**

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**TU.A-P61 - Weak ferromagnetic transition induced by structure phase transition in chiral antiferromagnet $Ba_3Fe_2O_5Cl_2$**

N. Abe [1], S. Shiozawa [1], N. Netsu [1], K. Nguyen [1], K. Matsuura [1], H. Sagayama [2], A. Nakao [3], Y. Tokunaga [1], T.H. Arima [1]

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**TU.A-P62 - Strain induced phase separation in thin films of half-doped $La_{0.5}Sr_{0.5}MnO_3$ manganites: 55Mn NMR studies**

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**TU.A-P63 - Overlayer-induced reconstruction of Mn orbitals in manganite thin films studied by 55Mn NMR**

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**TU.A-P65 - Peculiar Magnetoelectric Coupling in $BaTiO_3$:$Fe_{113}$ppm**

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**TU.A-P66 - Huge Resistive Change in Tunnel Junctions Using the Multiferroic BiFeO3 Barrier**

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**TU.A-P67 - Tests for electromagnetic effects on a toroidal magnetic ordered state of $UNi_4B$**

H. Saito [1], K. Uenishi [1], N. Miura [1], C. Tabata [1], H. Hidaka [1], T. Yanagisawa [1], H. Amitsuka [1]
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**TU.A-P73 - Magnetic- and electric-field control of magnetoelectric properties of $CaBaCo_4O_7$**

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**TU.A-P75 - Charge-Ordering induces magnetic axes rotation in organic materials (TMTTF)2X (X=PF6, AsF6, SbF6)**

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**TU.A-P76 - Improper ferroelectricity in the ~1 μC cm-2 range in the single-valent quadruple perovskite LaMn3Mn4O12**

A. Gauzzi [1], P. Bordet [2], C. Bellin [1], M. Verseils [1], A. Polian [1], Y. Klein [1], F. P. Milton [3], A. Gualdi [3], D. Dreifus [3], P. S. Pizani [3]
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**TU.A-P77 - Using pinned domain walls to implement magnetic logic gates in ferromagnetic-ferroelectric heterostructures**

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**TU.A-P78 - Exotic ferromagnetic ordering of polar magnetic PbVO3 epitaxial thin films**

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**TU.A-P79 - Magnetic properties and Magnetoelectric coupling of vacancy doped hexagonal $LuMn_xO_{3+/-delta}$ ceramics**

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**TU.A-P81 - Excitonic Multipole Order in a d-p Model with Parity Mixing**

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**TU.A-P82 - Effect of Fe doping on magnetic properties of RMnO3 single crystals (R = Gd and Dy)**

J. Laz·rovß [1], V. Viktor [1], M. Mihalik [1], M. Mihalik [1], M. Zentkovß [1], J. Brianþin [2], K. Uhlí°ovß [3], M. Kratochvílovß [3], M. Fitta [4]
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**TU.A-P83 - Determination of incommensurate magnetic structures using symmetry arguments**

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**TU.A-P85 - Phase transisions ans magnetoelectric coupling in bi1-xaxfeo3 (a=la, nd) multiferroic ceramics**

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**TU.A-P86 - Superficial strain effect on magnetic anisotropy of $BaTiO_3$/ $La_2/3Sr_1/3MnO_3$ bilayers**

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**TU.A-P87 - Magnetic and structural features of multiferroic $EuFe_3(BO_3)_4$: Spectroscopic studies**

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**TU.A-P88 - New dipolar ordering of $(C_2H_5NH_3)_2CuCl_4$ below 26 K**

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**TU.A-P89 - Jahn-Teller distortions study in $Sm(Nd)MnO_3$ Manganites**

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**TU.A-P90 - Inelastic neutron scattering on multiferroics NdFe3(BO3)4**

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**TU.A-P91 - Angular-dependent magnetic properties of exchange-coupled ferromagnetic and multiferroic $BiFeO_3$ thin films**

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**TU.A-P93 - Magnetic order, anisotropy and ferroelectricity in frustrated $Mn_{1-x}Co_xWO_4$ multiferroics at high doping**

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**TU.A-P94 - Magnetoelectric effect in CoFe alloy/Piezoelectric/CoFe alloy three-layered structures**

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**TU.A-P95 - Enhanced magnetism and electrical behavior of Co-doped $KNbO_3$**

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**TU.A-P97 - Electric tuning of magnetization dynamics and negative magnetic permeability in nanoscale composite multiferroics**

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**TU.A-P98 - Stabilization of the multiferroic spin cycloid in $Ni_3V_2O$ by light Co-doping**

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**TU.A-P99 - Preparation of ferromagnetic-insulating double perovskites of transition metal oxides for spintronic applications**

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**TU.A-P100 - Local electrical control of the Ferromagnetic/Antiferromagnetic transition in FeRh just above room temperature**

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**TU.B-P01 - Study of d-electron correlations in skutterudite-related $Ce_3M_4Sn_{13}$ (M = Co, Rh, and Ru)**

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**TU.B-P02 - Conduction Electron Spin Resonance in the heavy fermions a-$YbAl_{1-x}Fe_xB_4$ (x < 0.55) and their reference compound a-$LuAlB_4$**

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**TU.B-P03 - Static magnetic order in A-site ordered perovskite, $LaCu_3Cr_4O_{12}$, probed with muon-spin spectroscopy**

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**TU.B-P05 - Clarification of the crystal-field ground state in the Kondo semiconductor CeNiSn**

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**TU.B-P08 - Transport properties of Field-Insensitive Heavy-Fermion Compound $SmTa_2Al_{20}$**

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**TU.B-P09 - Powder x-ray diffraction study of caged magnetic compound $DyFe_2Zn_{20}$ at low temperature**

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**TU.B-P10 - Itinerant-Localized Transitions in Magnetic Phases of the Periodic Anderson Model**

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**TU.B-P11 - Double-k commensurate magnetic order in $NdFe_2Al_{10}$**

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**TU.B-P12 - $CeRh_6Si_4$ : An intermediate valent cerium compound**

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**TU.B-P13 - Thermodynamic properties of $CeRh_2Si_2$: Evidence for a meta-orbital transition?**

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**TU.B-P14 - Heavy fermion behavior in itinerant ferromagnet $CeCrGe_3$ and possible existence of a quantum bi-critical point in $CeCr_{1-x}Ti_xGe_3$**

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**TU.B-P15 - A combined full multiplet and configuration interaction analysis of hard x-ray photoelectron spectroscopy data of cerium compounds with strong plasmons**

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**TU.B-P17 - Cystal Field of Superstoichometric Samarium Dihydride (SmH2+â□)**

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**TU.B-P18 - Relation between Heavy Quasi Particles and Crystal Electric Field Multiplet in f2-Configuration Based Systems**

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**TU.B-P19 - Break-Junction tunneling spectroscopy of Kondo semiconductors semiconductors CeT2Al10 (T = Fe, Os)**

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**TU.B-P20 - Under-compensation effect in the Kondo insulator (Yb,Tm)$B_{12}$**

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**TU.B-P21 - Magnetic excitations through the hidden order transition in $URu_2Si_2$**

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**TU.B-P22 - Magnetic order in USb2 at high pressures**

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**TU.B-P23 - Inelastic neutron scattering measurement and low-temperature properties of CePd2(Al,Ga)2 compounds**

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**TU.B-P24 - Valence fluctuation mediated quantum criticality in heavy fermions**

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**TU.B-P25 - Quantum Criticality and Valence Fluctuation Study for Ce- and Yb-based Compounds Probed by 3d-2p Resonant X-ray Emission Spectroscopy**

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**TU.B-P26 - Isotropic magnon dispersion in A-type $CeCu_2Si_2$**

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**TU.B-P27 - Magnetic properties of heavy fermion antiferromagnet YbRhGe**

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**TU.B-P28 - Magnetic properties of a novel $CeCo_{0.715}Si_{2.285}$ compound**

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**TU.B-P29 - Magnetic and Electronic properties of $R$Cr$_{2}$Al$_{20}$**

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**TU.B-P30 - Strong ferromagnetism at the surface of an antiferromagnet EuRh2Si2**

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**TU.B-P31 - Relationship between onset of RKKY interaction and Ce element in Ce-based (RE-Gd)Ni; (RE=Ce, Y, Lu) compounds**

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**TU.B-P32 - Low temperature anomalies of the magnetic heat capacity of HoxLu1-xB12**

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**TU.B-P33 - Anomalous thermal expansion of intermediate valence YbAl3 nanometric alloys**

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**TU.B-P34 - Magnetic, thermal and electronic properties of nanosized $YbAl_2$ alloys**

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**TU.B-P36 - Magnetism in UBeGe**

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**TU.B-P38 - Valence state of Tm in $YbB_6$ and $YB_6$**

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**TU.B-P39 - Single crystal growth and electronic state of UPd2Cd20**

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**TU.B-P40 - Fragile antiferromagnetism in a new Shastry-Sutherland lattice compound $Yb_2Ru_3Ga_{10}$**

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**TU.B-P41 - Theoretical investigation of the linear and the nonlinear magnetic susceptibility of URu$_{2}$Si$_{2}$ compound**

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**TU.B-P42 - Thermal Expansion and Magnetostriction Measurements on Heavy-Fermion Compound $YbCu_4Au$**

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**TU.B-P43 - Pressure effect of $EuCu_9Sn_4$ and $EuZn_{13}$**

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**TU.B-P44 - Study of valence in heavy-fermion single crystals under pulsed magnetic fields up to 30 T**

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**TU.B-P45 - Crystallographic and Magnetic Properties of UAu2Si2**

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**TU.B-P47 - NMR observation of quadrupole order and multipole fluctuations in PrTi2Al20**

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**TU.B-P48 - $G_3$ lattice instability of $URu_2Si_2$ highlighted by pulsed magnetic field**

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**TU.B-P49 - Magnetic, transport, and structural properties of caged compounds $ROs_2Zn_{20}$ (R=La-Nd)**

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**TU.B-P50 - High-Frequency Ultrasonic Measurements of $SmOs_4Sb_{12}$ under Hydrostatic Pressure**

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**TU.B-P51 - Magnetic and transport properties of mixed-valent europium sulfide $EuPd_3S_4$**

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**TU.B-P52 - Role of c-f hybridization to the mid-IR peaks in Ce compounds**

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**TU.B-P53 - Anomalous low-energy excitations on $LaB_6$ investigated by Raman scattering measurements**

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**TU.B-P54 - Al-NMR study of single crystal $CeAl_2$ under high pressure**

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**TU.B-P55 - Electronic structure of $ThRu_2Si_2$ studied by ARPES**

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**TU.B-P57 - Novel heavy-fermion antiferromagnet YbRhGe with the TiNi-Si-type structure**

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**TU.B-P58 - Possible existence of partially disordered Sm ions in magnetically ordered state of Ising magnet $SmPt_2Si_2$**

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**TU.B-P59 - Nature of heavy fermion state in $R_{0.01}La_{0.99}B_6$ (R=Ce, Ho)**

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**TU.B-P60 - Intersite electron correlations in quasi-periodic systems**

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**TU.B-P61 - Influence of the Crystal Field on the Magnetic Properties of RE-$Ni_3Ga_9$ (RE = Gd, Tb, Dy and Ho) single crystals**

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**TU.B-P63 - Charge dynamics of heavy fermions in $CeCu_6$ and $YbRh_2Si_2$ probed by microwave spectroscopy**

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**TU.B-P64 - trivalent uranium crystal-field states in $UGa_2$ and $UPd_2Al_3$ intermetallics**

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**TU.B-P66 - Quantum criticality in $CeCu_2Ge_2$?**

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**TU.B-P67 - $Yb_2Ni_{12}Pn_7$ (Pn = P,As): A promising system for studying valence fluctuations and quantum criticality**

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**TU.B-P69 - Possible signature of magnetic order inside the superconducting state at low magnetic fields in $CeCoIn_5$**

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**TU.B-P70 - XMCD study of ferromagnetism in $YbCu_2Si_2$ under pressure**

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**TU.B-P72 - Crystal field in $R_2$RhIn$_8$ series studied by bulk measurements**

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**TU.B-P73 - Neutron scattering and high pressure transport properties in a rare correlated ferromagnet $Nd_2PdSi_3$**

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**TU.B-P74 - Magnetic and related properties of $Ce_3T_2Sn_7$ (where T = Ti, V, Cr, Co, Ni).**

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**TU.B-P75 - Low-temperature properties of the non-centrosymmetric heavy-fermion compound $CeTAl_3$ (T = Cu, Ag, Au, Pd, Pt)**

C. Franz [1], R. Schönmann [1], J. Spallek [1], A. Regnat [1], A. Senyshyn [2], P. Cermak [3], P.J. Cabre [1], A. Schneidewind [3], A. Bauer [1], C. Pfleiderer [1]
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**TU.B-P76 - Thermal expansion and magnetostriction of heavy fermion $CeRu_2Si_2$ at millikelvin temperatures**

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**TU.B-P77 - Fermi Surface properties in impurity kondo effect : Quantum oscillation study on $Ce_xLa_{1-x}Ru_2Si_2$ and $U_xTh_{1-x}Ru_2Si_2$**

Y. Matsumoto [1], Y. Haga [2], N. Tateiwa [2], N. Kimura [3], H. Aoki [3], E. Yamamoto [2], S. Ohara [1], Z. Fisk [2,4], H. Yamagami [2,5]
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**TU.B-P78 - Single Crystal Growth and physical properties of $R_2Pt_6Ga_{15}$ (R=rare earth)**

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**TU.C-P01 - Quantum criticality of spin liquids in novel insulators and magnets**

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**TU.C-P02 - Variation of magnetic phases in $Sr_{1-x}Ca_xCo_2P_2$ clarified with muon-spin spectroscopy**

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**TU.C-P03 - Quantum criticality of a Kondo quantum dot coupled to helical edge states of 2D interacting topological insulators**

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**TU.C-P04 - Yb-based quantum critical materials: Single crystal growth and characterization of $YbRh_2Si_2$ and $YbNi_4P_2$**

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**TU.C-P05 - Crossover from non-Fermi liquid to Fermi liquid behavior and the superconductivity dome in heavy electron systems**

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**TU.C-P06 - Non-linear quantum critical conductance in a dissipative resonant level through a double-barrier**

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**TU.C-P07 - Quantum criticality of an itinerant 5f-electron ferromagnet: Ru doped UCoAl**

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**TU.C-P09 - Tuning $ZrFe_4Si_2$ by Ge substitution: Confirming the proximity to a magnetic quantum critical point**

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**TU.C-P10 - Electron doping effect on $AeCo_2As_2$ (Ae = Ca, Sr and Ba)**

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**TU.C-P11 - Perfect Metal Phases of One-Dimensional and Anisotropic Higher-Dimensional Systems**

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**TU.C-P12 - Magneto - crystalline anisotropy and non - Fermi - liquid behaviour in $CeNi_{1-x}Co_xGe_2$**

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**TU.C-P13 - Non-fermi liquid behaviors in $PrIr_2Zn_{20}$: Effect of Ga substitution**

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**TU.C-P14 - Substitution driven magnetic instabilities of non-Fermi liquid $Ce_3Pd_4Si_4$**

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**TU.C-P15 - Theory for anomalous magneto transport of $CeCu_2Si_2$ under the pressure of sharp valence crossover**

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**TU.C-P16 - Strange Metal Without Magnetic Criticality**

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**TU.C-P17 - Non-Fermi liquid behavior in disordered Kondo systems $Ce_2Co_{0.8}Si_{3.2}$ and $Ce_2Rh_{0.4}Co_{0.4}Si_{3.2}$**

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**TU.C-P18 - High-pressure effect on low-temperature properties of the approximant crystal to magnetic Au-Al-Yb quasicrystal**

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**TU.C-P19 - Unconventional quantum critical behavior in nonmetallic $CeOBiS_2$: A mother phase of $BiS_2$-based superconductor**

R. Higashinaka [1], T. Asano [1], T. Nakashima [1], K. Fushiya [1], Y. Mizuguchi [1], O. Miura [1], T. D. Matsuda [1], Y. Aoki [1]
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**TU.C-P20 - Exploring the vicinity of a quantum cricital point with coplanar microwave resonators**

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**TU.C-P21 - Correlation effects in One-Dimensional Quasiperiodic Anderson-Lattice Model**

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**TU.C-P22 - Common Anomalies of Transport Properties in PrTr2Zn20 (Tr = Ir, Rh) with Non-Kramers Doublet Ground State**

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**TU.C-P23 - muSR-investigations on $Nb_{1-y}Fe_{2+y}$**

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**TU.C-P24 - Single-ion Kondo physics in the cage compound $CeRh_4Al_{15.37}$**

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**TU.C-P25 - Spin-fluctuation effects near the quantum phase transition of the ising-type itinerant ferromagnet URhAl**

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**TU.C-P26 - Electron spin resonance studies in the antiferromagnetic phase of YbRh$_2$Si$_2$**

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**TU.C-P27 - Peculiar transport and phase diagram in non-Kramers doublet compounds with quadrupole degree of freedom**

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**TU.C-P28 - The effect of hydrostatic pressure on the electronic liquid crystal phase of $Sr_3Ru_2O_7$**

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**TU.C-P29 - Magnetic field-induced quantum criticality in pressurized CeNiAsO and CeNiAs0.65P0.35O**

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**TU.C-P30 - Search for a Quantum Brazovskii phase transition in $Mn_{1-x}F_exSi$**

J. Kindervater [1], S. Ernst [1], F. Haslbeck [1], T. Adams [1], A. Bauer [1], C. Franz [1,2], N. Martin [1,2,3], W. Häußler [1,2], M. Garst [4], P. Böni [1], C. Pfleiderer [1]

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**TU.C-P31 - Tetragonal iron monotelluride under extreme conditions**

R. Viennois [1,2], S. Arsenijevic [3,4], R. Gaal [3], L. Forro [3], W. Knafo [5], G. Ballon [5], X. FabrÞges [5], F. Duc [5], J. Léotin [5], C. Deftels [6]

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**TU.C-P32 - Magnetic field - temperature phase diagrams including modulated magnetic order near the border of ferromagnetism in $NbFe_2$**

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**TU.C-P33 - Tuning of the modulated magnetic order at the border of ferromagnetism in $NbFe_2$**

P.G. Niklowitz [1], M. Gamza [1], M. Hirschberger [2], J. Poulten [1], W. Duncan [1], A. Neubauer [3], P. Cermak [4], A. Schneidewind [4], K. Seemann [4], E. Faulhaber [4]
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D. Molecular Magnetism

**TU.D-P01 - Magnetization jumps in [Mn((R/S)-pn)]2[Mn((R/S)-pn)2(H2O)][Cr(CN)6]2 molecular magnets**

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**TU.D-P02 - Single-ion magnet behavior of Co(II) in cyclodextrine-based multinuclear sandwich-type complexes**

N. Nedelko [1], P. Aleshkevych [1], A. Kornowicz [2], J. Lewinski [2], A. Krzyzewski [1], S. Lewinska [1], A. Slawska-Waniewska [1]
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**TU.D-P03 - Magnetism of Mn(dppm)2(OAc): Field induced slow magnetic relaxation of single five-coordinated Mn(III) ion**

N. Nedelko [1], P. Aleshkevych [1], A. Kornowicz [2], J. Lewinski [2], A. Krzyzewski [1], S. Lewinska [1], A. Slawska-Waniewska [1]
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**TU.D-P04 - Magnetostructural correlations in anion-radical salts M(bipy)3(TCNQ)4, where M=Co, Ni, Zn**

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**TU.D-P05 - Magneto-structural correlations of paramagnetic ionic liquids with 3D ordering in the solid state**

A. García-Saiz [1], I. de Pedro [1], P. Migowski [2], I. Hernández [1], L. Fernández Barquín [1], I. Abrahams [3], M. Motevalli [3], J. Rodríguez Fernández [1]
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**TU.D-P07 - Comparison of spin dynamics and magnetic properties in antiferromagnetic closed and open molecular Cr-based rings**

F. Adelnia [1,2], F. Borsa [2], L. Bordonali [2], M. Mariani [3], S. Bordignon [4], T. Orlando [2], R. Winpenny [5] G. Timco [5], A. Lascialfari [1,2]
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**TU.D-P08 - Raman scattering study of a chiral two-dimensional molecule-based magnet**

N. Ogita [1], T. Hasegawa [1], M. Udagawa [1], L. Li [2], K. Inoue [2]
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**TU.D-P09 - Correlation between dielectric and magnetic properties on fullerene-based magnets**

T. Kambe [1], K. Oshima [1]
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**TU.D-P10 - Magnetic properties of FePc on In/Si(111) surface studied with ab initio calculations**

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**TU.D-P11 - A ferrimagnetic dodecnuclear Fe(III) complex exhibiting single-molecule magnet behavior**

J.P. Tong [1], X.J. Xu [1], D.J. Yang [1], Jun Tao [1]
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**TU.D-P12 - Unexpected antiferromagnetic interaction of CrTPP molecules with bare cobalt thin film**

M. Baljozovic [1], J. Girovsky [1], K. Tarafder [2,3], J. Nowakowski [1], C. Wäckerlin [4], D. Siewert [5], A. Wäckerlin [5], A. Kleibert [6], N. Ballav [7], T.A. Jung [1]
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**TU.D-P13 - Neutron scattering signatures of the entanglement transition in molecular magnets: An exact-diagonalisation study**

H. Irons [1,2,3], J. Quintanilla [1,2,3], T. Perring [2], L. Amico [4], G. Aeppli [6,7,8], M.A. Martin-Delgado [5]
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*8. Swiss Federal Institute of Technology Lausanne*

**TU.D-P14 - Slow magnetic relaxation of Co-NIT ferrimagnetic chains**

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**TU.D-P15 - A stochastic model for magnetic dynamics in single-molecule magnets**

R. López-Ruiz [1], P. Todero de Almeida [1], M.G.F. Vaz [2], M.A. Novak [3], F. Béron [1], K. Roberto Pirota [1]
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E. Electronic Structure. Itinerant-electron magnetism. Half-metals. Insulators

**TU.E-P01 - Full-potential KKR calculations for electronic and magnetic properties of transition metal monosilicide MSi (M=Cr-Co) and mixtures of FeSi and CoSi, based on the generalized-gradient approximation**

M. Asato [1], C. Liu [2], N. Fujima [3], T. Hoshino [3]
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**TU.E-P02 - AA-stacked bilayer graphene in an applied electric field: Tunable antiferromagnetism and coexisting exciton order parameter**

R. Akzyanov [1,2,3], A. Rakhmanov [1,2,3,4], A. Rozhkov [0], A. Sboychakov [3,4], F. Nori [4,5]
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*3. Institute for Theoretical and Applied Electrodynamics*
*4. CEMS RIKEN*
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**TU.E-P03 - Magnetic properties of $Ce_{n+1}Co_{3n+5}B_{2n}$ (n = 0, 1, 2, 3) compounds investigated by $^{59}Co$ NMR**

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**TU.E-P04 - Optical investigation on the electronic structure of FeGe thin film**

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*2. Ulsan University, Ulsan, South Korea*

**TU.E-P05 - Effect of annealing on magnetic and structural properties of half-metallic $Co_2MnAl$ Heusler ribbons**

T. Ryba [1], L. Galdun [1], Z. Vargova [2], M. Obaida [3], K. Saksl [4], M. Durisin [4], V. Haskova [1], P. Szabo [4], C. Garcia [5], R. Varga [1]
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**TU.E-P07 - First-principles study of spin-wave dispersion in FeCo alloy system with tetragonal distortion**

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**TU.E-P08 - Investigating the metallic and insulating behaviors in $NiCo_2O_4$ thin films by X-ray absorption spectroscopy**

Y.Y. Chin [1], Y. Bitla [2], J.C. Lin [3], N. Chien [2], R.R. Liu [4], Y.M. Zhu [4], H.J. Liu [2], Q. Zhan [4], H.J. Lin [1], C.T. Chen [1]
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*5. Department of Physics, Durham University, Durham, United Kingdom*

**TU.E-P09 - Magnetic and resistivity properties in half-metallic glass-coated $Co_2FeSi$ Heusler microwires**

L. Galdun [1], T. Ryba [1], V. Prida [2], V. Zhukova [3], A. Zhukov [3], Z. Vargova [1], R. Varga [1]
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**TU.E-P10 - Half-metallic ferromagnetism in Sn-doped perovskite ruthenates: A first-principles study**

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**TU.E-P11 - Effect of hydrogen on magnetic properties of ε-$Fe_2O_3$**

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**TU.E-P12 - X-ray and visible magnetic circular dichroism spectroscopy of $Pr_{1-x}Sr_xMnO_3$ thin films: Comparative study**

A. Rogalev [4], Y. Samoshkina [1], I. Edelman [1], A. Sokolov [1], K. Ollefs [2], N. Andreev [3], V. Chichkov [3]
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**TU.E-P13 - Electronic structure and magnetic properties of $(LaMnO_3)m/(SrTiO_3)n$ Superlattices**

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**TU.E-P14 - Quantum interference of surface-induced friedel oscillations enhanced by fermi-surface nesting in layered manganites**

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**TU.E-P15 - First-principles study for the chiral magnet $Cr(NbS_2)_3$**

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**TU.E-P16 - Anomalous oxidation state of iron in two-leg ladder compound $Ba_6Fe_8S_{15}$**

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**TU.E-P17 - Metal-Insulator Transition driven by all-in/all-out magnetic ordering in $Cd_2Os_2O_7$**

C.H. Sohn [1], H.G. Jeong [1], H.S. Jin [1], J. Yamaura [2], S.Y. Kim [1], L.J. Sandilands [1], H.J. Park [1], K.W. Kim [3], S.J. Moon [4], D.Y. Cho [5]
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**TU.E-P18 - Fabrication of epitaxial $Mn_2CoAl$ films for spintronic applications using spin-gapless semiconductors**

K. Ueda [1], S. Hirose [1], M. Nishiwaki [1], T. Hajiri [1], H. Asano [1]
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**TU.E-P19 - Semiconducting behaviour of $Ce_3Cu_3Sb_4$ revisited**

L. Kalinowski [1], P. Witas [1], M. Fijałkowski [1], J. Goraus [1], A. Œlebarski [1]
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**TU.E-P20 - De haas-van alphen effect and fermi surface properties in ferromagnet $LaCo_2P_2$ and related compounds**

A. Teruya [1], A. Nakamura [1], T. Takeuchi [2], F. Honda [3], D. Aoki [3], K. Matsubayashi [4], Y. Uwatoko [4], H. Harima [5], K. Uchima [6], M. Hedo [7]
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**TU.E-P21 - Spin stiffness constant of half-metallic ferrimagnet in Mn-based Heusler alloys**

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**TU.E-P23 - Curie temperature within the electronic correlation formalism in double perovskites systems**

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**TU.E-P24 - Half-metallic properties of (001) surfaces of quaternary Heusler alloys CoFeCrZ (Z=Al and Ga): A first-principles study**

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**TU.E-P25 - Magnetic exchange interaction between A'-site transition-metal ions in A-site-ordered perovskites**

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**TU.E-P26 - Spin gapless ferrimagnetism induced by triangular frustration in (111)-oriented FeX/GaX (X = N, P, and As) superlattices**

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**TU.E-P27 - Electronic structure and magnetic properties of ($LaMnO_3$)m/($SrTiO_3$)n superlattices**

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**TU.E-P28 - Chemical disorder and enhanced curie temperature of $Co_{2-x}Fe_{1+x-}$Si heusler alloys**

J. Karel [1], J. Fischer [1], P. Adler [1], L. Wollmann [1], S. Fabbrici [2], G. Fecher [1], F. Albertini [2], C. Felser [1]
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**TU.E-P29 - Magnetic structure of $Hf_{0.825}Ta_{0.175}Fe_2$ itinerant-electron system as probed by neutron diffraction under high pressure**

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**TU.E-P30 - Spectral signatures of thermal spin disorder and excess Mn in half-metallic NiMnSb**

K. Belashchenko [1], J. Weerasinghe [1], S. Mu [1], B. Pujari [1]
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**TU.E-P31 - ESR study of heavily Na-doped low-silica X zeolite near the insulator-to-metal transition**

T. Nakano [1], K. Mukai [1], S. Hayashi [1], Y. Nozue [1]
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**TU.E-P33 - Pressure induced insulator to metal transition in neutral radical FBBO**

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**TU.E-P34 - Spectral features of angle-resolved photoemission in a magnetic-polaron system**

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**TU.E-P35 - Magnetic properties of Cr-based ternary compound CrAlGe**

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**TU.E-P36 - Electronic and magnetic properties of impurity hydrogen in semiconductors**

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**TU.E-P37 - Magnetism and insulator-to-metal transition of strongly correlated polarons in alkali-metal loaded zeolites**

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**TU.E-P38 - 77Se NMR study on the possible excitonic insulator $Ta_2NiSe_5$**

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**TU.E-P39 - NMR/NQR studies on the phase transition in A-site-ordered perovskites $ACu_3Cr_4O_{12}$ (A= La and Bi)**

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**TU.E-P40 - Electric field dependence of the induced magnetic moment of pd thin film**

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**TU.E-P41 - Tailoring of electronic and magnetic properties of bcc Fe- based high entropy alloys**

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**TU.E-P42 - Thickness dependent dynamic study of ion-beam sputtered $Co_2FeAl$ thin films**

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**TU.E-P43 - Moessbauer spectroscopy study of collapse-like decrease of Fe magnetic moment in amorphous (Fe-Cr)-B and Fe(Cr-Cu)-B alloys**

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**TU.E-P44 - Studies of 27Al NMR in $SrAl_4$**

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**TU.E-P45 - Influence of structural disorder on electronic structure and magnetic properties of $YCo_2$-based compounds**

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**TU.E-P46 - Relation between composition, crystal structure, and magnetic properties of $Cu_{1+x}Mn_{1-x}As$ compounds**

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**TU.E-P47 - Magnetic phases in Single Crystals Mn$_5$Si$_3$**

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**TU.E-P51 - Transport properties of a metallic two-dimensional triangular antiferromagnet $Ag_2CrO_2$**

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**TU.E-P53 - The ground-state phase diagram of the XXZ spin-s kagome antiferromagnet**

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F. Magnetic nanoparticles

**TU.F-P03 - Preparation and characterization of poly-alpha-olefin-based ferrofluids**

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**TU.F-P04 - Magnetic and magnetoelectric properties of $Fe_3O_4$ nanocrystal self-assembly**

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**TU.F-P05 - Effect of dextran coated superparamagnetic iron oxide nanoparticles during in vivo observation of the rats**

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**TU.F-P06 - Synthesis, self-organization and magnetism of iron oxide and Au-iron oxide core/shell nanocomposite particles**

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**TU.F-P07 - Magnetic properties and crystal structure of $DyMn_2O_5$ nanoparticles embedded in mesoporous silica**

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**TU.F-P09 - Proton relaxometry and magnetic hyperthermia evaluation of gadolinium doped nickel ferrite nanoparticles**

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**TU.F-P10 - Synthesis of Co doped $AgFeO_2$ delafossite nanoparticles**

T. Yamazaki [1], K. Mori [1], M. Hachisu [1], S. Morimoto [1], K. Hyodo [1], Y. Ichiyanagi [1]
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**TU.F-P11 - Evolution of complex magnetoresistance and perpendicular magnetic anisotropy in cobalt nanoparticles in silver matrix**

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**TU.F-P12 - Excluded volume causes integer and fractional plateaus in magnetic colloidal ratchet currents**

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**TU.F-P13 - Depinning and collective dynamics of magnetically driven colloidal monolayers**

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**TU.F-P14 - Enhanced room temperature ferromagnetism of Sol-Gel synthesized $LaMnO_3$ nanoparticles**

C. Liu [1], B. Lee [1], P. Tola [1], D.H. Kim [1]
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**TU.F-P15 - Stability of patrons inscribed on arrays of magnetic nanowires**

E. Vogel [1], J. Faundez[1], E. Cisternas[1]
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**TU.F-P16 - Magnetic anisotropy of maghemite nanoparticles probed by RF transverse susceptibility**

A.I. Figueroa [1,2], J. Bartolomé [1], L.M. García [1], F. Bartolomé [1], A. Millán [1], F. Palacio [1]
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**TU.F-P17 - Universal behaviour for magnetic entropy change in Ba-doped $La_{0.7}Ca_{0.3}MnO_3$ nanoparticles**

T.D. Thanh [1,2], D.C. Linh [2], T.A. Ho [1], T.L. Phan [3], S.K. Oh [1] N, S.C. Yu [1]
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*2. Vietnam Academy of Science and Technology, Hanoi, Vietnam*
*3. Hankuk University of Foreign Studies, Yongin, South Korea*

**TU.F-P18 - Core-shell Ag@$Fe_3O_4$ brick-like nanoparticles for magnetic hyperthermia**

M.E. Fortes Brollo [1], C. Sato [2], D. Muraca [1], R. López-Ruiz [1], K. Pirota [1], M. Knobel [1]
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**TU.F-P19 - Tailoring magnetic size-dependent properties of Co-ferrite nanoparticles for permanent magnet applications**

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**TU.F-P20 - Magnetic properties of mechanically alloyed bcc Fe-Pd influenced by hydrogen**

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**TU.F-P21 - On the interplay of dipolar interactions and surface spin disorder in colloidal maghemite nanocrystal clusters**

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**TU.F-P22 - Influence of annealing process on the structure and magnetic behavior of $Ba_{0.5}Co_{0.5}Fe_2O_4$ nanoparticles**

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**TU.F-P23 - Dimensionality effects on the dynamics of dipolar interacting ferromagnetic fine particles: A monte carlo investigation**

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**TU.F-P24 - Effect of Zn concentration on photonic crystals band structure of $Co_{1-x}Zn_xFe_2O_4$ nanoparticules under an external perpendicular magnetic field**

G. Zambrano [1], N. Porras-Montenegro [2], M.E. Gomez [1], J. Alonso Lopez [1,3], L.E. González [2]
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**TU.F-P26 - Crystal Field Effects Of $Er^{3+}$ In Cubic $NaY_{1-x}Er_xF_4$ Nanoparticles**

A.F. Garcia-Flores [1], G. Lesseux [2], T. Caldonazo [2], D. Garcia [3], R. Urbano [2], C. Rettori [1,2]
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**TU.F-P29 - Structural changes in ferronematic liquid crystals studied by surface acoustic waves**

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**TU.F-P30 - Interactions in densely packed nanoparticle systems**

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**TU.F-P31 - Autoresonant switching of the magnetization in single-domain nanoparticles**

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**TU.F-P32 - Magnetooptical study of ferritin with different iron content**

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**TU.F-P33 - High performance core-shell structured magnetic nanoparticles: Fabrication, characterization, and application**

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**TU.F-P34 - Magnetostatic interactions in dense clusters of magnetic nanoparticles**

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**TU.F-P35 - Preparation of ε-$Fe_2O_3$ nanoparticles by crystal structural transformation of iron oxide nanoparticles**

R. Nishida [1], A. Muramatsu [1], M. Nakaya [1]
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**TU.F-P36 - Spin diffusion in nonlocal spin valves operated by spin pumping**

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**TU.F-P37 - Effects of milling conditions on nano-scale MnFe(P,Si) particles by surfactant-assisted high-energy ball milling**

T. Nguyen [1], E.H. Bruck [1], N.H. van Dijk [1]
*1. FAME, RST, TU Delft*

**TU.F-P38 - Effects of milling conditions on nano-scale MnFe(P,Si) particles by surfactant-assisted high-energy ball milling**

T. Nguyen [1], E.H. Bruck [1], N.H. van Dijk [1]
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**TU.F-P39 - Synthesis of iron-oxide nanoparticles. Size and shape effect on magnetic properties**

J.M. Orozco [1], D. Muraca [1], S. Sharma [1], M. Knobel [1]
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**TU.F-P41 - Soft magnetic $Zn_xMn_{1-x}Fe_2O_4$ spinels**

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**TU.F-P42 - Structural and magnetic properties of cobalt ferrite nanoparticles obtained by laser ablation in liquid**

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**TU.F-P43 - Dopant effect on the magnetic and structural properties in $Sn_{1-x}TM_xOy$ nanoparticles (TM = Co, Fe and Mn)**

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**TU.F-P44 - Fe,Mn-dilution effect on the magnetic properties in $Zn_{1-x}$(Fe,Mn)O nanoparticles**

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**TU.F-P45 - Behavior of the magnetic hyperfine field in $Fe_3O_4$ nanoparticles doped with hafnium**

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**TU.F-P46 - Tuning the size of magnetic $CoFe_2O_4$ nanocrystallites - An in situ powder X-ray diffraction study**

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**TU.F-P47 - Coexixtance of superparamagnetic and spin glass behaviors in $Co_{30}Cu_{70}$ granular alloy and room temperature memory effect**

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**TU.F-P48 - Characterization of biocompatible magnetic nanoparticles modified by PEG**

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**TU.F-P49 - Influence of magnetic nanoparticles on nematic to isotropic phase transition kinetics in liquid crystal mixture**

K. Csach [1], A. Juríková [1], J. Miskuf [1], N. Tomasovicová [1], Z. Mitroová [1], V. Zavisová [1], M. Koneracká [1], P. Kopcanský [1], N. Éber [2], K. Fodor-Csorba [2], V. Vajda [2]
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**TU.F-P50 - Influence of magnetic nanoparticles on phase transition temperatures in bent-core and rod-shaped liquid crystal mixture**

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**TU.F-P51 - Probing structural and chemical inhomogeneities in assemblies of nanoparticles with wide size distributions: A ferromagnetic nuclear resonance study of cobalt nanoparticles for producing synthetic fuel**

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**TU.F-P52 - Exchange-bias and collective magnetic behavior of random binary compacts of maghemite nanoparticles**

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**TU.F-P53 - Interactions and surface effects in bimagnetic CoO_core/$Co_{0.5}Ni_{0.5}Fe_2O_4$_shell nanoparticles**

G. Lavorato [1], E.Winkler [1], E. Lima Jr [1], D. Peddis [2], H. Troiani [1], E. Agostinelli [2], D. Fiorani [2], A. Ghirri [3], D. Rinaldi [3], R. Zysler [1]
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**TU.F-P54 - Coffee ring effect analyzed by eddy current sensing in drying magnetite solution droplets**

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**TU.F-P55 - Bottom-up Structuring of Magnetic $SrFe_{12}O_{19}$ Nanoplatelets**

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**TU.F-P56 - X-ray magnetic circular dichroism of free, 3d transition metal molecules**

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**TU.F-P57 - Spatially-resolved EELS analysis of antibody distribution on biofunctionalized magnetic nanoparticles**

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**TU.F-P58 - Structural and magnetic properties in co-deposited Fe-doped Yb films**

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**TU.F-P59 - Pressure-dependence of the magnetic irreversibility in the disordered phase of Superantiferromagnetic $TbCu_2$ nanoparticles**

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**TU.F-P60 - Co and Ni doping in iron oxide nanoparticles: A systematic study**

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**TU.F-P61 - Synthesis strategies of single-core magnetic nanoparticles**

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**TU.F-P62 - Mössbauer Study of Co-Ti ferrite nanoparticles for magnetic hyperthermia treatment**

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**TU.F-P63 - Coherency of reversible magnetization changes in Ni nanorods**

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**TU.F-P64 - Iron oxide-based magnetic nanostructures for enhanced theranostic applications**

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**TU.F-P65 - Spin-glass-like freezing of inner and outer surface layers in hollow maghemite nanoparticles.**

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**TU.F-P66 - Dielectric and magnetic properties of a-$Fe_2O_3$ nanoparticles**

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**TU.F-P67 - Beyond the effect of particle size: Influence of $CoFe_2O_4$ nanoparticle arrangements on magnetic properties**

D. Peddis [1], C. Cannas [2], A. Musinu [2], A. Ardu [2], F. Orrù[2], D. Fiorani [1], S. Laureti [1], D. Rinaldi [1,4,5], G. Muscas [1,3], G. Concas [3]

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**TU.F-P68 - Magnetic properties of small magnetite nanocrystals**

G. Muscas [1,3], G. Concas [3], C. Cannas [2], A. Musinu [2], A. Ardu [2], F. Orrù [2], D. Fiorani [1], S. Laureti [1], D. Rinaldi [1,4,5], G. Piccaluga [2]

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**TU.F-P69 - Magnetic properties of transition metal co-doped $TiO_2$ nanoparticles and local structure analysis by XAFS measurements**

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**TU.F-P70 - AC magnetic susceptibility and hyperthermia effect in vitro experiment of cozn-ferrite nanoparticles**

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**TU.F-P71 - Energy losses in bacterial magnetosomes**

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**TU.F-P72 - Arsenic adsorption in a magnetic stabilized bed made of magnetic aggregates based on hydrated iron oxides**

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**TU.F-P73 - Nanomagnetic particles synthesis: Comparision of methods and applications**

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**TU.F-P76 - Novel structures and spin correlations in nanomagnets**

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**TU.F-P78 - Energy losses in bacterial magnetosomes**

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**TU.F-P79 - Size-dependent electronic and magnetic properties of iron oxide and cobalt ferrite nanocrystals probed by synchrotron X-ray imaging and spectroscopy**

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**TU.F-P80 - The role of the 1,2-hexadecanediol on the magnetic properties of Co-ferrite nanoparticles**

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**TU.F-P81 - Designing new manganite/ferrite nanocomposites with tunable magnetic and electrical properties**

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**TU.F-P82 - ESR study of $YbNi_2$ nanometric alloys**

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**TU.F-P83 - Geometry-induced effects on domain walls on curved surfaces**

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**TU.F-P84 - Magnetic properties and relaxation processes in FePt nanoparticles**

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**TU.F-P85 - Nanocomposite magnetic materials obtained by synthesis of Fe nanoparticles in presence of $SrFe_{12}O_{19}$ nanoparticles**

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**TU.F-P86 - Chemical synthesis of $SrFe_{12}O_{19}$ nanoparticles: influence of processing parameters on structural and magnetic properties**

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**TU.F-P87 - Size dependent magnetism in FeO/$Fe_3O_4$ Core/Shell nanoparticles**

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**TU.F-P88 - Chemically synthesized $Cu_{1-x}Fe_xCr_2Se_4$ nanoparticles. Morphology and magnetic properties**

C.R. Lin [1], C.C. Chen [1], O. Li [1,2], H.S. Hsu [1], R. Ivantsov [2], S. Zharkov [2,3], I. Edelman [2], D. Velikanov [2], S. Ovchinnikov [2,3]

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**TU.F-P89 - Magnetic and EPR studies of electron-hole asymmetry in bulk and nanoparticles of $Bi_{1-x}Ca_xMnO_3$ ($x = 0.4, 0.6$): A comparison**

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**TU.F-P90 - Preparation and magnetic properties of interaction-free magnetite nanoparticles**

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**TU.F-P91 - Acoustic investigation of biocompatible magnetic fluid under magnetic field**

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**TU.F-P93 - Cobalt ferrite nanoparticles: A two phases behavior at low temperature**

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**TU.F-P94 - Small angle neutron scattering and superspin glass behavior in compacts of as-received and 350 °C-annealed maghemite nanoparticles**

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**TU.F-P95 - Exchange bias in $Co_xFe_{1-x}O$(AFM)|$Co_xFe_{3-x}O_4$(FiM) Core|Shell nanoparticles**

E. Lottini [1,2], A. López-Ortega [1,2], G. Bertoni [3], S. Turner [4], C.d.J. Fernandez [2,3], C. Sangregorio [2,5]
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**TU.F-P96 - Mössbauer and magnetic study of $Co(Ti,Sn)_xFe_{2-x}O_4$ nanoferrites**

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**TU.F-P98 - Structural and magnetic properties of $CoFe_2O_4$ nanoparticles diluted in $SiO_2$ amorphous matrix**

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**TU.F-P100 - Ultrafast hyperthermia using $Fe_3O_4$ nanoparticles**

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**TU.F-P101 - Surface oxidation effect on the verwey transition in cubic magnetite nanoparticles**

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**TU.F-P102 - SANS, Mössbauer and magnetic characterization of interacting iron oxide nanoparticles**

P. Bender [1], D. Alba Venero [1], L. Fernández Barquín [1], R. Costo [2], J. Fock [3], C. Frandsen [3], M. Fougt Hansen [3], S. Rogers [4], E. Wetterskog [5], P. Svedlindh [5]
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**TU.F-P103 - The effect of pH on the structural and magnetic properties of $MnFe_2O_4$ nanoparticles synthesized via proteic sol-gel process**

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**TU.F-P104 - XRD, Mössbauer and magneticstudy of $Mn_xMg_{0.5-x}Zn_{0.5}Fe_2O_4$ nanoparticles**

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**TU.F-P105 - Magnetic properties of $Mg_{0.5}Co_{0.5}Fe_2O_4$ and $Mg_{0.8}Co_{0.2}Fe_2O_4$: The effect of milling**

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**TU.F-P106 - Modulation of interacting phenomena in iron oxide nanoparticle colloids**

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**TU.F-P107 - Effects of vanadium doping on the magnetism of FeCo and FeCo/$SiO_2$ Core/Shell nanoparticles**

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**TU.F-P108 - Iron/silicon/ silica nanoparticles synthesized via laser pyrolysis technique and thermal treatment**

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**TU.F-P111 - Magnetic and structural characterization of the cobalt ferrite nanoparticles**

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**TU.F-P113 - Room temperature ferromagnetism in (Fe,Cr)-doped $CeO_{2-\delta}$ nanoparticles synthesized by proteic sol-gel process**

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**TU.F-P114 - Synthesis, structural and magnetic properties of mixed Zinc-Cobalt ferrite nanoparticles**

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**TU.F-P115 - Towards ideal biotechnologically applicable magnetic particles with highly tunable perpendicularly magnetized synthetic anti-ferromagnets**

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**Tu.F-P122 - Ferronematics in low magnetic fields**

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**Tu.F-P123 - Magnetic moments in Pd nanoparticles: from sub-μm to sub-nm size**

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## G. Perpendicular magnetic anisotropy materials

**TU.G-P01 - [Co/Pt] multilayers structural, magnetic and electronic properties: role of the Pt thickness**

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**TU.G-P02 - Perpendicular magnetic anisotropy and Gilbert damping study in amorphous FeTaC film**

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**TU.G-P03 - Effects of process parameters on structures and perpendicular magnetic properties of Co-rich Co-Pt thin films**

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**TU.G-P04 - perpendicular magnetic anisotropy of very thin $L_{10}$ FePt films**

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**TU.G-P06 - Magnetic properties of the interfaces of MgO/Fe and Pt/Fe studied by hard X-ray photoemission**

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**TU.G-P07 - Structure and spin texture of FeCo ultrathin films on $Cu_3Au(001)$**

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**TU.G-P08 - Influence of high density plasma processes on magnetic properties and microstructures of FePt alloy films**

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**TU.G-P09 - Negative perpendicular anisotropy in $NiFe_2O_4$ (001) epitaxial film grown on $MgAl_2O_4(001)$**

M. Matsumoto [1], H. Yanagihara [1], S. Sharmin [1], J.I. Inoue [1], E. Kita [1]
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**TU.G-P10 - Rotatable magnetic anisotropy in anisotropy-graded FePt films induced by ion irradiation at low incidence angle**

M.G. Pini [1], A. Rettori [2], S. Tacchi [3], G. Gubbiotti [3], M. Madami [4], A. di Bona [5], S. Valeri [6], F. Albertini [7], F. Casoli [7], P. Ranzieri [7]
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**TU.G-P11 - Competing Nd and Co contributions to the perpendicular magnetic anisotropy of $Nd_xCo_{1-x}$ amorphous thin films first time observed by X-ray magnetic circular dichroism**

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**TU.G-P12 - Synesthetic ferrimagnet of cubic Heusler/tetragonal Heusler $Mn_3Ga$ bilayers with perpendicular magnetic anisotropy**

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**TU.G-P13 - Real-space calculations of uniaxial magnetic anisotropy at surfaces of bcc Fe films and of Y2Fe14B compounds**

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**TU.G-P14 - Magnetic properties of amorphous Tb_{x}Co_{1-x} thin films grown in an in-plane external magnetic field by combinatorial magnetron sputtering**

Gabriella Andersson [1], Y, Sebastian George [1] N, Andreas Frisk [1] N, Fridrik Magnus [1]
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**TU.G-P15 - Anisotropy studies of Co and FeCo nanowires with Torque Magnetometry**

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**TU.G-P16 - Fabrication of $Mn_3Ga$ nanodisks using polystyrene nanosphere lithography**

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**TU.G-P17 - Perpendicular magnetic anisotropy of $Co_2FeAl$ Heusler alloy thin films grown on flexible kapton substrates**

M. Gabor [1], T. Petrisor jr. [1], C. Tiusan [1], M. Belmeguenai [2], F. Zighem [2], D. Faurie [2]
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**TU.G-P18 - Magnetic anisotropy of $Fe_{1-y}X_yPt$-$L_{10}$ [X = Cr, Mn, Co, Ni, Cu] bulk alloys.**

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**TU.G-P19 - Effect of Copper underlayer on perpendicular magnetic anisotropy in Co/Ni multilayers**

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**TU.G-P20 - Sputtering energy and perpendicular magnetic anisotropy of CoFeB**

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**TU.G-P21 - Large perpendicular magnetic anisotropy in magnetostrictive $Fe_{1-x}Ga_x$ thin films**

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**TU.G-P24 - Estimation of Fe buffer layer for higher perpendicularly anisotropic magnetic property of $L1_0$-FePt grains fabricated by Rapid Thermal Annealing**

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**TU.G-P25 - Out of plane magnetic anisotropy and anisotropic magnetoresistance in epitaxial $La_5/_{8-y}Pr_yCa_3/_8MnO_3$ (y=0.4) thin films**

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**TU.G-P27 - Temperature dependence of perpendicular magnetic anisotropy in CoFeB thin films**

Y. Fu [1], I. Barsukov [2], A. Goncalves [2,3], M. Spasova [4], M. Farle [4], C. Kuo [5], J.P. Attané [1], L. Vila [1], I. Krivorotov [2]
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**TU.G-P28 - PNR studies of magnetization in Pt/Co/Pt trilayers irradiated by EUV light pulses**

W. Szuszkiewicz [1], F. Ott [2], E. Dynowska [1], R. Minikayev [1], A. Bartnik [3], I. Jacyna [1], D. Klinger [1], A. Wawro [1], R. Sobierajski [1], Z. Kurant [4]
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## H. Soft and Hard magnetic materials

**TU.H-P01 - A firmware-defined digital direct-sampling NMR spectrometer for condensed-matter physics**

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**TU.H-P02 - Specific heat and thermal expansion of $LaCo_{1-x}Ga_xO_3$ cobaltates**

N.K. Gaur [1], R. Thakur [1], R.K. Thakur [1]
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**TU.H-P03 - Micromagnetic simulations of nanocomposites and their neutron scattering response**

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**TU.H-P04 - Critical behaviors at low-field of Fe-Ni-Zr alloy ribbons**

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**TU.H-P06 - The Memory in Magnetic Systems**

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**TU.H-P07 - Forced volume magnetostriction of $Y_2Fe_{17-x}M_x$ (M=Al,SI,Ga)**

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**TU.H-P09 - New medium frequency MnZn Ferrite with low losses over a broad temperature range**

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**TU.H-P10 - Vector model for losses in non-oriented steel sheets**

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**TU.H-P11 - magnetic and structural evolution of $Nd_2Fe_{14}B$ nanoparticles doped with Co and Ni during surfactant-assisted ball-milling**

J.S. Trujillo Hernandez [1], J. Anselmo Tabares [1], G.A. Pérez Alcázar [1]
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**TU.H-P12 - The effect of high energy ball - milling on the morphology and magnetic properties of $Ho(Ni_{0.5}Co_{0.5})_3$ compound**

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**TU.H-P13 - Partitioning of rare earth dopant and magnetic properties of RF3-doped Nd-Fe-B hot-pressed magnet**

J.Y. Kim [1], H.W. Kwon [1], J.G. Lee [2], J.H. Yu [2]
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**TU.H-P14 - Direct imaging of Fe nanoclusters in a melt-spun FeSiBPCu alloy by aberration corrected high-resolution transmission electron microscopy**

K. Sato [1], K. Takenaka [1], A. Makino [1], Y. Hirotsu [1]
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**TU.H-P15 - The effect of film thickness on the forming process and switching parameters of sol-gel prepared cobalt ferrite thin films**

C. Liu [1], M. Mustaqima [1], D.H. Kim [1], B.W. Lee [1]
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**TU.H-P16 - A novel experimental determination of the magnetometric self-demagnetization factor**

N. Hillier [1], M. Hall [1], S. Turner [1], S. Harmon [1]
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**TU.H-P17 - Power density increasing design for railway vehicle traction motor using Halbach magnet array structure**

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**TU.H-P18 - Application of the Jiles-Atherton model for the temperature dependence of magnetic hysteresis loops of amorphous alloys with perpendicular anisotropy**

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**TU.H-P19 - Influence of grain boundaries on magnetization-reversal within Nd-Fe-B magnets**

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**TU.H-P20 - Effect of pre-sintering on the magnetic properties of NdFeB sintered magnets diffusion -treated with Cu/Al mixed $DyH_2$ powder**

M.W. Lee [1], H.S. Lee [1], T. Jang [1], T.H. Kim [2], S.R. Lee [2], H.J. Kim [3]
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**TU.H-P21 - Synthesis and Magnetic Properties of $SrZn_xFe_{(2-x)}Fe_{16}O_{27}$ ($0.0 \leq x \leq 2.0$)**

J.H. You [1], S.J. Choi [1], S. Lee [1], S.I. Yoo [1]
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**TU.H-P23 - Effect of milling energy and soft phase pre-milling on the microstructure and interphase exchange coupling of $Nd_2Fe_{14}B/\alpha$-Fe nanocomposites**

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**TU.H-P24 - Structural and magnetic properties of mechanically milled $Mn_{50}Al_{46}M_4$ (M = Mn, Ni) alloys**

R. Hirian [1], S. Mican [1], O. Isnard [2], I. Chicinaş [3], M. Coldea [1], V. Pop [1]
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**TU.H-P25 - Tic additive in neodymium iron boron magnets**

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**TU.H-P26 - Permalloy thin films on palladium activated self assembled monolayer for magnetics on silicon applications**

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**TU.H-P27 - Magnetic anisotropy and stress sensitivity of thin-gauge non-oriented electrical steels**

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**TU.H-P28 - Effect of Nd-Fe layer on the hard magnetic properties for Nd-Fe-B thin films**

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**TU.H-P29 - Microstructure and magnetic properties of highly condensed anisotropic MnBi system**

Y.C. Chen [1], G. Gregori [2], S. Sawatzki [3], B. Rheingans [4], F. Qu [4], S. Ener [3], O. Gutfleisch [3], H. Kronmüller [1], Gisela Schütz [1], Eberhard Goering [1]
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**TU.H-P30 - Effect of stress on hysteresis loops of crystalline and amorphous materials**

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**TU.H-P31 - Valence-specific magnetization of the ferrimagnetic oxyborate single crystals using soft and hard X-ray magnetic circular dichroism under high magnetic fields**

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**TU.H-P32 - Fabrication and characterization of iron phosphate-coated Fe metal powder**

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**TU.H-P33 - Study on hysteresis properties and domain behaviours in high purity Fe-(4-6)wt% Si alloys**

Z. Lei [1], T. Horiuchi [1], I. Sasaki [1], C. Kaido [2], M. Takezawa [1], Y. Horibe [1], T. Ogawa [3], H. Era [1]
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**TU.H-P34 - Comparison of the magnetic properties of submicron-sized strontium hexaferrite powders prepared with a top-down or a bottom-up approach**

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**TU.H-P35 - Frozen orbital moment at rare earth M4,5 absorption edges in Nd based rare earth permanent magnets**

S. Tripathi [1], Y. Chun Chen [1], T. Tietze [1], S. Schuppler [2], P. Nagel [2], M. Merz [2], G. Schütz [1], E. Goering [1]

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**TU.H-P36 - From exchange-biased core@shell nanoparticles to hard magnetic nanostructured ceramics**

T. Gaudisson [1,2], G. Franchesin [1], N. Flores-Martinez [3], R. Valenzuela [3], N. Yaacoub [4], J. Grenèche [4], F. Mazaleyrat [2], S. Ammar [1]

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**TU.H-P37 - Evidence of dipolar magnetic interaction in melted $Fe_{50}Al_{50}$ samples**

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**TU.H-P38 - Fe-Pt / Fe-Co Nanocomposite films fabricated by electrochemical method**

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**TU.H-P39 - Discontinuities of plastic deformation in amorphous alloys with different glass forming ability**

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**TU.H-P40 - Magnetic SANS study of a sintered Nd-Fe-B magnet: estimation of defect size**

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**TU.H-P41 - Steinmetz law in AC magnetic fields for iron-phenolformaldehyde resin soft magnetic composites**

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**TU.H-P42 - Study of dy diffusion in high-coercivity NdFeB magnets for electric-vehicle drive applications**

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**TU.H-P43 - Optimizing the magnetic properties of bulk Mn-Ga by severe plastic deformation and magnetic field annealing**

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**TU.H-P44 - Effect of $WS_2$/Al co-doping on the microstructural and magnetic properties of Nd-Fe-B sintered magnet**

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**TU.H-P45 - DC reversible and irreversible magnetization processes in Fe-based composite materials**

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**TU.H-P46 - Different metastable states of $Hf_2Co_{11}B$ alloy as precursors for rare-earth free permanent magnets**

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**TU.H-P47 - A study on the anisotropic diffusion of Dy in the grain boundary diffusion processed Nd-Fe-B sintered magnet**

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**TU.H-P48 - Microwave properties of MnCuZn substituted $BaFe_{12}O_{19}$ in 0-26.5 GHz range**

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**TU.H-P49 - Investigation of microwave properties of $Cu^{2+}$ substituted NiZn-ferrite with sample thickness in 0-26.5 GHz range**

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**TU.H-P50 - Dielectric properties of $AgY_{1-x}Gd_x(WO_4)_2$ solid solutions**

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**TU.H-P51 - Dynamics of magnetization processes in complex permeability spectra of fe-based soft magnetic ribbons and powder cores**

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**TU.H-P52 - Magnetic properties of mixed and vacuum/pressure impregnated $Fe/SiO_2$/shellac composites**

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**TU.H-P53 - Specific heat of polycrystalline $Ni_2InVO_6$**

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**TU.H-P54 - Spin wave propagation in yttrium iron garnet films grown on gadolinium gallium garnet and silicon substrates by ion beam evaporation**

V. Sakharov [1], Y. Khivintsev [1,2], S. Vysotsky [1,2], Vl. Shadrov [3], A.Stognij [3], Y. Filimonov [1, 2]
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**TU.H-P55 - Bulk CoNiFe-SiB amorphous and nanostructured alloys produced by plasma spray deposition and dynamic compaction: formation of soft magnetic properties**

E. Denisova [1], L.Kuzovnikova [2], A. Kuzovnikov [3], R. Iskhakov [1], A. Lepeshev [4], I. Nemtsev [5], V.Saunin [6], S. Telegin [6]
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**TU.H-P56 - Behaviors of magnetic properties and hardness in precipitation and recovery process on deformed Fe-Cu alloy**

H. Kikuchi [1], T. Sasaki [1], F. Ito [1], T. Murakami [1]
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**TU.H-P57 - Large-scale micromagnetics simulation for magnetization reversal process in Nd-Fe-B nanocrystalline magnets under periodic boundary condition**

H. Tsukahara [1], K. Iwano [1], N. Inami [1], T. Ishikawa [1], C. Mitsumata [1,2], K. Ono [1]
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**TU.H-P58 - Effect of current density for electroplated films prepared in a des-based bath**

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**TU.H-P59 - Magnetoelastic characteristics of the 13CrMo4-5 constructional steel and possibility of its modelling for non-destructive testing**

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**TU.H-P60 - Phase formation and magnetocaloric effect in (Pr,Nd)-Fe alloys prepared by rapidly quenched method**

N. Dan [1], N. Ha [2], N. Yen [1], P. Thanh [1], T. Thanh [1,3], L. Phan [3], S. Yu [3]
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**TU.H-P61 - Extraction and valorization of rare earth permanent magnets comprised in waste electrical and electronic equipment: the extrade project.**

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**TU.H-P62 - Milling and sintering of Nd-Fe-B magnets comprised in weee: a way for recycling rare earth permanent magnets.**

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**TU.H-P63 - Coercivity enhancement in Ce-Fe-B magnets by Nd-Cu infiltration**

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**TU.H-P64 - Magnetic and microstructural properties of MnBi thin films grown by an UHV sputtering system**

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**TU.H-P65 - A model for the dysprosium diffusion from a surface layer in NdFeB magnets**

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**TU.H-P66 - Suitable nanostructures for the application of the SW-CLC Model**

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**TU.H-P67 - Fabrication and magnetic properties of $Fe_{81.4}Si_3B_{10}P_5Cu_{0.6}$ nano-crystalline powder cores**

Y. Zhang [1], J. Luan [1], N. Yodoshi [1], P. Sharma [1], A. Makino [1]
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**TU.H-P68 - A soft/hard magnetic nanostructure based on multisegmented coni nanowires**

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**TU.H-P69 - Enhancement of magnetic property of Nd-Fe-B powders prepared by reduction-diffusion process**

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**TU.H-P70 - Coercivity enhancement in La coated Nd-Fe-B thin films**

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**TU.H-P71 - Magnetic property and magnetocaloric effect in Ni-Mn-(Sn,Sb,Al) heusler alloys**

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**TU.H-P72 - Effects of ordered phases on the structure and magnetic properties of fe-9%si-2%cr powder**

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**TU.H-P74 - Structure and magnetic properties of sputtered smxco100-x (20< x<32) films prepared at low temperatures**

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**TU.H-P75 - Effect of RF-Power on magnetic properties and FMR line width of RF-Sputtered Zn-Ferrite thin films**

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**TU.H-P77 - Magnetic properties and X-ray photoemission of $NaCo_{2-x}Ca_xO_4$ ($x$ = 0.0, 0.1 and 0.2)**

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**TU.H-P78 - Magnetic properties of hexaferrites obtained by spark plasma sintering of $SrFe_{12}O_{19}$ nanoparticles**

JM. Le Breton [1], N. Maât [1], V. Nachbaur [1], E. Folcke [1], FX. Lefevre [2], Y. Bréard [2], A. Pautrat [2]
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**TU.H-P79 - Crystallization process and magnetic properties of Fe-rich nanocrystals embedded on amorphous magnetic ribbons**

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**TU.H-P80 - Direct and converse magnetoelectric effect in BSPT-NFO co-fired laminate composite**

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**TU.H-P81 - Combinatorial development of Fe-Co-Nb thin film magnetic nanocomposites**

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**TU.H-P85 - Optical and magneto-optical properties of Bi substituted Nd iron garnets prepared by metal organic decomposition method**

E. Jesenska [1,2], M.Sasaki [1], T. Hashinaka [1], G. Lou [1], M. Zahradnik [2], L. Ohnoutek [2], R. Antos [2], M. Veis [2], T. Ishibashi [1]
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**TU.H-P87 - Co ferrite thin films on MgO (100) prepared by metal-organic decomposition method**

T. Ishibashi [1], M. Sasaki [1], M. Ninomiya [1], T. Tsurui [1], K. Shinozaki [1], T.Komatsu [1], H.Yanagihara [2], E. Kita [2]
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**TU.H-P88 - Refining of Mo permalloy powders (MPPs) by hydrogen and magnetic properties of core made of refined MPPs**

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**TU.H-P89 - crystal field parameters for rare-earth permanent magnets: wannier function approach**

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**TU.H-P90 - Effects of annealing on the structure and magnetic properties of Fe-Si-Cr flakes and composite sheets**

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**TU.H-P91 - Theoretical evaluation of temperature dependence of magnetic anisotropy constants of $R_2Fe_{14}B$ compounds**

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**TU.H-P92 - The influence of ac joule heating on the magnetic properties of thin finemet cold-drawn microwires**

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**TU.H-P93 - Magnetoelastic properties of amorphous $Co_{66}Fe_4Ni_1B_{14}Si_{15}$ alloys in compressive and tensile stress sensors applications**

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**TU.H-P94 - Strain-controlled MO effect on highly Bi-substituted neodymium iron gallium garnet thin films**

M. Sasaki [1], G. Lou [1], T. Hashinaka [1], A. Meguro [1], M. Ninomiya [1], T. Ishibashi [1], T.Taniyama [2]
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**TU.H-P95 - Structural and magnetic properties of magnetically semi-hard $(Fe_xCo_{1-x})3B$ compounds**

**TU.H-P96 - Effect of the Mn/Bi ratio on the microstructure and magnetic properties of melt-spun MnBi LTP alloys**

M. Grigoras [1], M. Lostun [1], G. Ababaei [1], H. Chiriac [1], N. Lupu [1]
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**TU.H-P97 - Grain boundary engineering of thin FeCo films: a route towards new hard magnetic materials**

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**TU.H-P98 - Nanosized powder with preserved soft magnetic properties obtained by high energy and cryomilling techniques.**

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**TU.H-P99 - Magnetic and structural analysis of mechanically alloyed Fe-Co based nanocrystalline alloys**

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**TU.H-P100 - Study of AC magnetic properties and core losses of $Fe/Fe_3O_4$ - epoxy resin soft magnetic composite**

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**TU.H-P101 - Tailoring the magneto-transport properties of ferromagnetic amorphous wires**

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**TU.H-P102 - Cobalt doping effect on Ni-Zn-Cu ferrites produced by reactive sintering**

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**TU.H-P103 - Structural, morphological & magnetic studies on pristine and Gd-doped $YBiO_3$ particles**

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**TU.H-P104 - Problems of measuring and modeling of compressive stresses influence on magnetic properties of Fe-based amorphous alloy in rayleigh region**

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**TU.H-P105 - Transformaton of the magnetic nature of Li -Fe spinels due to substitution with Ba and Ti ions**

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**TU.H-P106 - Shape dependent spin switching and surface state in millimeter-sized single crystals of $R_2Fe_{14}B$ (R=Nd and Tb)**

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**TU.H-P107 - Nanoanalytical TEM studies and micromagnetic modelling of (Nd,Pr)-Fe-B magnets**

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**TU.H-P108 - Comparison of potential approximations in electronic structure calculations of magnetic anisotropy energy of $PrCo_5$ and $Pr_2Fe_{14}B$**

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**TU.H-P109 - First principles study for the effect of spin fluctuation on the crystalline magnetic anisotropy in L10-type ordered alloys**

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**TU.H-P110 - Ab-initio study on the hard magnetic properties of MnBi**

P. Toson [1], A.Asali [1], G.r Zickler [1], J.Fidler [1]
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**TU.H-P111 - Directly obtained τ phase MnAl for permanent magnets**

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**TU.H-P112 - Annealing effect on magnetic properties of hot-deformed Nd-Fe-B magnets**

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**TU.H-P113 - High saturation magnetization of Fe-based amorphous / nanocrystalline ribbons**

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**TU.H-P114 - Magnetic anisotropy of $Nd_{0.5}Bi_{2.5}Fe_{5-y}Ga_yO_{12}$ (y = 0 ~ 1) thin films on glass substrates prepared by metal organic decomposition (MOD) method**

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**TU.H-P115 - SANS study of the initial magnetization process in nanocrystalline Nd-Fe-B magnets**

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**TU.H-P116 - Alnico V thin films with improved saturation magnetization and coercivity**

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**TU.H-P117 - Mechanically induced superelastic effect in magnetic Fe-Ni-Co-Al-Ta-B rapidly quenched microwires**

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**TU.H-P119 - Preparation of Co-based amorphous powders by wet mechanical alloying. The influence of Si and/or B substitution by Ti and/or Zr over their properties**

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**TU.H-P120 - Structural and magnetic characteristics of nanocrystalline iron-magnetite composite powder obtained by mechanosynthesis**

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**TU.H-P121 - Temperature dependence of coercivity in $(Mn_{1-x}Ti_x)_{50}Bi_{50}$ alloys**

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**TU.H-P122 - Soft magnetic composite $Fe_3O_4/Ni_3Fe$ obtained by mechanosynthesis and annealing, structural and magnetic characteristics**

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**TU.H-P124 - The influence of severe plastic deformation on magnetic properties of some 3-d based alloys perspective for rare-earth free permanent magnets**

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**TU.H-P125 - Joint and separate effect of d/D and d on the magnetic properties of glass-coated amorphous ferromagnetic microwires**

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**TU.H-P126 - High frequency properties of ferrite - Fe-Si-Al alloy soft magnetic composites**

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**TU.H-P128 - Electronic theory for the magnetic properties of $Nd_2Fe_{14}B$ compounds**

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**TU.H-P129 - Influence of the continuousness and thickness of the shell of the magnetically bi-phase microwires on the core/shell magnetostatic coupling**

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**TU.H-P130 - Structural and magnetic properties of substituted M-type barium hexagonal ferrite annealed at different temperatures**

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**TU.H-P131 - A density functional theory study on the novel high coercivity BCT Fe-Co-Si phase**

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**TU.H-P132 - X-ray analysis of ordered Fe-Co thin films**

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**TU.H-P133 - Effect of magnetic field annealing on magnetoimpedance in nanocrystalline Fe-Cu-Nb-Si-B bilayer ribbons**

F. Andrejka [1], M. Varga [1], L. González-Legarreta [1], J. Marcin [1], J. Kováč [1], D. Janičkovič [2], P. Švec [2], I. Škorvánek [1]
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**TU.H-P136 - Structure and the magnetic properties of $RFe_{4.5}Si_{1.5}$ (R=Y, Dy, Gd)**

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**Tu.H-P137 - Crystal domains and magnetic glassy state in Co-ferrite nanoparticles**

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**TU.I-P01 - Influence of applied field direction on linearity of transition and demagnetized domain structure in stacked media**

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**TU.I-P02 - Anomalous Hall effect studies on crystalline Tb-Fe thin films**

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**TU.I-P03 - Extraordinary hall effect based magnetic logic applications**

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**TU.I-P04 - Energy dissipation during Landauer erasure in sub-micrometric permalloy switches: magneto-optical measurements vs micromagnetic simulations**

L. Martini [1], M. Pancaldi [2], M. Madami [1], P. Vavassori [2], G. Carlotti [1], G. Gubbiotti [3], S. Tacchi [3], F. Hartmann [4], M. Emmerling [4], M. Kamp [4], L. Worschech[4]
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**TU.I-P05 - Novel oxygen showering post treatment (OSP) for the robust sub-20nm magnetic tunnel junctions (MTJs) patterning process**

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**TU.I-P06 - Non-symmetricity for faster switching in p-MTJ structure**

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**TU.I-P07 - Micromagnetic study of exchange-coupled composite bit-patterned media**

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**TU.I-P08 - A dual stacked perpendicular magnetic tunnel junction for logic application**

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**TU.I-P09 - Stochastic behavior of spin transfer switching in magnetic tunnel junctions for physically unclonable function systems**

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**TU.I-P10 - Self-initializing dual MTJ MRAM cell design**

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**TU.I-P11 - Hybrid fan-out element with magnetic quantum dot cellular automata and domain wall logic**

H.Nomura [1], N.Tanigaki [1], F. Nakamura [1], S. Miura [1], R. Nakatani [1]
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**TU.I-P12 - Two Dimensional Equalisation of Shingled Write Disk**

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**TU.I-P13 - Potential of field-coupled magnetic logic circuits with perpendicular anisotropy in terms of scaling and material improvements**

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**TU.I-P14 - Control of magnetic inactivation layer thickness in MnGa film by kr⁺ ion irradiation**

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**TU.I-P15 - Ultra-fast three-terminal perpendicular spin-orbit torque mram**

M.Cubukcu [1], O. Boulle [2], N. Mikuszeit [2], C. Hamelin [2], N. Lamard [5], L. Prejbeanu [2], K. Garello [3], I. Miron [2], J. Langer [4], B.Ocker [4], P. Gambardella[3], G. Gaudin[2]
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**TU.I-P16 - (001) Oriented MnGa film grown on Si substrate for ion beam patterned media**

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**TU.I-P18 - Investigation of p-MTJ stability for application purposes**

C. Engel [1], S. Goolaup [1], H. Kheng Teoh [1], W. Siang Lew
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**TU.I-P19 - Data input and output method for 3D-MQCA with MFM**

K. Iwaki [1], R.Wakasa [1], H.Nomura [1], R.Nakatani [1]
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**U.I-P20 - High saturation magnetization and perpendicular anisotropy of atomic layer stacking Co/Pt films sputter deposited at room temperature**

N. Honda [1], T. Tsuchiya [1], H. Uchida [1], S. Saito [2], S. Hinata [2]
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**TU.I-P21 - Dynamic magnetization reversal in NiFe wires with assistance of microwave impulse combined with 100-picosecond pulsed field**

G. Okano [1], Y. Nozaki [1, 2]
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**TU.I-P22 - Atomic composition dependence of microwave-assisted magnetization reversal in CoCrPt-based perpendicular media**

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**TU.I-P23 - Damping constants of $Ni_xFe_{100-x}$(60<$x$<80) single crystal thin films investigated by Q-band ferromagnetic resonance analysis**

T. Nishimura [1], S. Yamanaka [1], Y. Takahashi [1], N. Inaba [1], M. Ohtake [2], M. Futamoto [2], F. Kirino [3]
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**TU.I-P24 - Sputter growth on amorphous Si/$SiO_2$ substrates of perpendicularly-magnetized ferrimagnetic Mn3Ge heusler thin films with giant coercivity**

Y. Ferrante [1], J. Jeong[2], M. Samant[3], C. Felser[4], S. Parkin[5]
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A. Quantum magnetism and physics of frustration

**TH.A-P01 - Quantum degradation of the second order phase transitions**

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**TH.A-P02 - Ground state and magnetization process of a linear chain composed of coupled localized spins and mobile electrons**

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**TH.A-P03 - Novel quantum phase transitions of the frustrated spin nanotube**

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**TH.A-P04 - Evidencies for a non magnetic anomaly at 1K emerging from ferromagnetic $Ce_{2.1}(Pd_{1-x}Ag_x)_{1.95}In_{0.95}$ alloys**

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**TH.A-P05 - Tomonaga-luttinger spin liquid properties of a strong-leg heisenberg spin ladder**

D. Schmidiger [1], K. Povarov [1], N. Reynolds [1], R. Bewley [2], T. Guidi [2], S. Mühlbauer [3], P.Bouillot [4,5], C. Kollath [6], T. Giamarchi [7], A. Zheludev [1]
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**TH.A-P06 - Entanglement in the one-dimensional SU(2)x*XXZ* spin-orbital models**

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**TH.A-P07 - Dynamical properties of hole-doped quantum haldane chain Nd2-xCaxBaNiO5**

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**TH.A-P08 - Spin-orbital order in systems with orbital dilution**

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**TH.A-P10 - Incomplete devil's staircase in the magnetization curve of SrCu2(BO3)2**

M. Takigawa [1], M Horvatic [2], T. Waki [3], S. Kraemer [2], C. Berthier [2], F. Levy-Bertrand [2], I. Sheikin[2], H. Kageyama [4], Y. Ueda [1], F. Mila [5]
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**TH.A-P11 - Measurements of transport and magnetic properties of layered antiferromagnet $FePS_3$ under pressure.**

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**TH.A-P12 - Magnetic properties and structure diversity in $RE_2Ni_2X$ hydrides**

S. Maskova [1], R. V. Denys [2], I. Halevy [3], V. Yartys [2], M. Giovannini [4], L. Havela [1]
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**TH.A-P13 - Quantum critical point of UCoAl determined by AC magnetic susceptibility**

N. Kimura [1], N. Kabeya [1], K.Ohyama [1], M. Maeda [1], H. Fujii [1], M. Kogure [1], T. Asai [1], H. Aoki [1], T.Komatsubara [2], T. Yamamura [2], I. Satoh[2]
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**TH.A-P14 - Quantum crystallization of magnetic quasiparticles in a dimer magnet $Ba_2NiSi_2O_6Cl_2$**

M. Koike [1], M. Okada [1], N. Kurita [1], H. Tanaka [1], H. Uekusa [1], K. Johmoto [1], A. Matsuo[2], K. Kindo[2]
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**TH.A-P15 - Ferromagnetism in two band metals: the very strong coupling limit**

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**TH.A-P16 - Anomalous weak ferromagnetism of non-magnetic Sc, La, Eu, Y, Lu ion substituted RB4 (R = Sm, Gd, Tb, Dy, Ho, Er)**

B. Kang [1], S. Lee [1], M. Song [1], D.Kim [2], J.Kim [3], B. Cho [1]
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**TH.A-P17 - Anomalous spin dynamics of coupled spin-tetramer system $CuSeO_3$**

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**TH.A-P18 - Bose-einstein condensation vs. crystallization of magnons in dimer magnets $Ba_2MSi_2O_6Cl_2$ (M=Co, Cu)**

M. Okada [1], N. Kurita [1], H. Tanaka [1], K. Johmoto [2], K. Fujii [2], H. Uekusa [2], A. Matuo [3], K.Kindo [3], M. Tokunaga [3], H. Nojiri [4], M. Nakamura[5], S. Nishimoto[6]
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**TH.A-P19 - Magneto-electric effects in the interacting dimer system TlCu-Cl3**

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**TH.A-P20 - NMR investigations of spin dynamics and order in the BEC-type quantum antiferromagnets**

M. Horvatic [1], M. Klanjsek [1,2], R. Blinder [1], M. Jeong [1,3], S. Mukhopadhyay [1,4], S.Krämer [1], M. S. Grbic [1,5], H. Mayaffre [1], C. Berthier [1]
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**TH.A-P21 - Magnetic polarization of the americium J = 0 ground state in $AmFe_2$**

N. Magnani [1], R. Caciuffo [1], F. Wilhelm [2], E. Colineau [1], R.Eloirdi [1], J. Griveau [1], J. Rusz [3], P. Oppeneer [3], A. Rogalev [2], G.H. Lander [1]
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**TH.A-P22 - Magnetic properties of single crystals of the S=2 quasi-1d heisenberg antiferromagnet MnCl_3(bpy)**

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**TH.A-P23 - AC susceptibility evidence for a tricritical point in the ferromagnet $NdOs_4As_{12}$**

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**TH.A-P24 - Ferromagnetic state of SU(3) hubbard model on the Lieb lattice**

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**TH.A-P25 - Glassy phases in dimerized quantum antiferromagnets**

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**TH.A-P26 - Neutron diffraction study of proton disorder in D2O - ice**

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**TH.A-P27 - $BaAg_2Cu[VO_4]_2$ quantum magnet: local probe studies (ESR and NMR)**

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**TH.A-P28 - Slow thermodynamics in the phase separated state of the bilayered manganite $(La_{0.4}Pr_{0.6})_{1.2}Sr_{1.8}Mn_2O_7$**

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**TH.A-P29 - Pinning effect in chiral soliton lattice $CrNb_3S_6$**

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**TH.A-P30 - Angle-resolved photoemission study of a quasi-one dimensional thermoelectric material $Ba_3Co_2O_6(CO_3)_{0.7}$**

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**TH.A-P32 - Substitution effects in an itinerant electron metamagnetic compound $SrCo_2P_2$**

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**TH.A-P33 - Electron spin resonance in the strong-rung spin-1/2 heisenberg ladder system $Cu(C_8H_6N_2)Cl_2$**

A. Ponomaryov [1], M. Ozerov [1], L. Zviagina [1], M. Uhlarz [1], J. Wosnitza [1,2], K. Povarov [3], F. Xiao [3], A. Zheludev [3], C. Landee [4], E. Čižmár [5], A. Zvyagin [6, 7], S. Zvyagin [1]

**TH.A-P34 - Unusual magnetic ordering of the frustrated triangulated-kagome antiferromaget, $Cu_9$ (cpa) $6Cl_2$ •$nH_2O$**

A. Matsuo [1], H. Kikuchi [2], T. Asano [2], H. Nakata [2], N. Kasamatsu [2], K. Kunieda [2], Y. Fujii [3], Y. Inagaki [4], K. Kindo [1]
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**TH.A-P35 - Selection rule of the direct transition in the spin gap system studied by high field ESR measurements**

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**TH.A-P36 - On the anomalous magnetism of $FeGa_{3-y}$Gey: combined thermodynamic, mössbauer spectroscopy and first principles simulation studies**

M. A. Avila [1], M. Cabrera-Baez [1], R. A. Ribeiro [1], J. Munevar [1,2], H. Micklitz [2], E. M. Bittar [2], E. Baggio-Saitovitch [2], J. Alvarez-Quiceno [1], J. M. Osorio-Guillen [1,3], G. M. Dalpian [1]
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**TH.A-P38 - Spin liquid ground state in a vanadium based S=1/2 trimerized kagome compound**

J. Orain [1], F. Bert [1], P. Mendels [1], L. Clark [2], F. Himeur Aidoudi [2], P. Lightfoot [2], R. Edward Morris[2]

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**TH.A-P39 - Sign reversal and non-monotonic magnetocaloric effect in $EuRhAl_4Si_2$**

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**TH.A-P40 - Spin, charge and lattice dynamics in the frustrated Shastry-Sutherland system TmB4**

S. Gabáni [1], I. Takáčová [1], K. Siemensmeyer [2], A. Bogach [3], N. Sluchanko [3], N. Shitsevalova [4], J. Prokleška [5], V. Sechovsk² [5], K. Falchbart [1], A. Ievdokimova [4]

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**TH.A-P41 - Zero-field spinon confinement and field-induced quantum phase transitions in the 1D XXZ antiferromagnet $SrCo_2V_2O_8$**

A. K. Bera [1], B. Lake [1], A. Schneidewind [2], D. Quintero-Castro [1], B. Klemke [1], J. Law [3], A. Mccollam [4], F. Essler [5]

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**TH.A-P42 - Magnetic properties of the new rare earth pyrochlore $Nd_2Zr_2O_7$**

J. Xu [1], A. T. M. Nazmul Islam [1], A. Bera [1], B. Klemke [1], J. Niedziela [2], M. Frontzek [3], Y. Su [4], E. Feng [4], B. Lake [1]

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**TH.A-P43 - Effective spin-1/2 model for $Tb_2Ti_2O_7$**

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*2. Brock University, Saint Catharines, Canadá*

**TH.A-P44 - Interplay of charge and spin fluctuations of strongly interacting electrons on the frustrated kagome lattice**

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**TH.A-P45 - Thermodynamics of frustrated magnets: High-temperature expansion revisited**

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B. Kondo physics in bulk materials and nanoscale structures

**TH.B-P01 - Energy gap and mixed valence state in $Sm_{1-x}B_6$ and $Sm_{1-x}La_xB_6$ kondo insulators** S.Gabáni[1], G. Pristáš[1], J. Bednarčík[2], E. Welter[2], V. Filipov[3], N.Shitsevalova[3], K.Flachbart[1]

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**TH.B-P03 - Magnetic polarons in $EuB_6$**

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**TH.B-P04 - Anisotropic thermopower of the antiferromagnetic kondo semiconductor $CeOs_2Al_{10}$ doped with 5d electrons and holes**

T. Takabatake [1,2], Y. Yamada [1], J. Kawabata [1], T. Onimaru [1], Y. Muro [3]
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**TH.B-P05 - Novel kondo lattices $CePd_3Al_3$ and $CePd_4Al_4$**

D. Kaczorowski [1], D. Gnida [1], A. Tursina [2], E. Khamitcaeva [2], A. Gribanov [2]
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**TH.B-P06 - Friedel oscillations in strongly correlated fermionic systems-RDMFT-CTQMC approach**

B. Chatterjee [1], K. Makuch [1], K. Byczuk [1]
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**TH.B-P07 - Structural and high-field 57Fe mössbauer investigations on $FeSb_2$**

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*2. X-Ray Center, TU Wien, 1060 Wien, Austria*

**TH.B-P09 - Field dependence of the magnetic propagation vector of the heavy-fermion compound $CeCu_2Ge_2$ studied by neutron diffraction**

M. Loewenhaupt [1], P. Geselbracht [2], E. Faulhaber [2], M. Doerr [1], O. Stockert [5], K. Schmalzl [3], K. Nemkovski [4], M. Deppe [5], A. Schneidewind [4]
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**TH.B-P10 - Kondo physics in a Ni impurity embedded in O-doped Au chains**

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**TH.B-P11 - Anisotropic chemical pressure effect on the antiferromangetic kondo semiconductor $Ce(Ru_{1-x}Fe_x)_2Al_{10}$**

K. Hayashi [1], Y. Muro [1], T. Fukuhara [1], T. Kuwai [2], J. Kawabata[3], T. Takabatake [4], M. Hagiwara [5], K. Motoya [5]
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**TH.B-P12 - Magnetic properties of the kondo insulator $CeRu_4Sn_6$**

A. Sidorenko [1], H. Winkler [1], A. Prokofiev [1], S. Paschen [1]
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**TH.B-P13 - Modification in magnetic properties of epitaxial $FeSb_2$ thin film on MgO**

A. Duong [1], Y. Shin [1], S. Rhim [1], V. Nguyen [1], S. Cho [1]
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**TH.B-P14 - Physical properties of single-crystalline $LaBe_{13}$, $NdBe_{13}$, and $SmBe_{13}$**

H. Hidaka [1], K. Mizuuchi [1], S. Yamazaki [1], N. Miura [1], C. Tabata [1], Y. Shimizu [2], T. Yanagisawa [1], H. Amitsuka [1]
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**TH.B-P17 - Anomalous hall effect in ferromagnetic $L1_0$-MnAl with orbital two-channel kondo effect**

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**TH.B-P18 - Point-contact spectroscopy of heavy fermion compounds $CeCu_6$ and $CeAl_3$ in magnetic field**

G. Motoyama [1], S. Ogawa [1], K. Matsubayashi [2], K. Fujiwara [1], S. Nishigori [1], T. Mutou[1], K. Miyoshi [1], A. Yamaguchi [3], A. Sumiyama [3], Y. Uwatoko [2]
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**TH.B-P19 - Anisotropy of the Kondo effect revealed by Raman scattering spectroscopy**

J. Buhot [1,2], Y. Gallais [2], M. Cazayous [2], A. Sacuto [2], G. Lapertot [3], D. Aoki [3,4], X. Montiel [5], S. Burdin [6], C. Pépin [5], M. Méasson [2]
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**TH.B-P20 - To the origin of the singlet ground state of the fe impurity in the archetype kondo system: cufe**

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**TH.B-P21 - $CePd_2Zn_3$ - a new kondo lattice antiferromagnet**

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C. Magnetic phase transitions and magnetic interactions

**TH.C-P01 - Doping dependent magnetism and exchange bias in $CaMn_{1-x}Nb_xO_3$**

V. Markovich [1], I. Fita [2], A. Wisniewski [2], R. Puzniak [2], C. Martin [3], D. Mogilyansky [4], G. Jung [1], G. Gorodetsky [1]
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**TH.C-P02 - Molecular spin dynamics analysis of complex magnetic structure on the FCC lattice in itinerant electron system**

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**TH.C-P04 - Low-temperature spin-glass behaviour in a diluted dipolar Ising system**

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**TH.C-P07 - Magnetic control of thermopower in selected manganites**

R. Mahendiran [1]
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**TH.C-P08 - Physical properties of the FeRh alloys: the antiferromagnetic to ferromagnetic transition**

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**TH.C-P09 - Magnetic properties of the $RAuBi_2$ (R = Ce, Pr, Nd, Gd, Sm) series of intermetallic compounds**

C. B. R. Jesus [1], M. M. Piva [1], P. F. S. Rosa [1,2], C. Adriano [1], Z. Fisk [2], P. G. Pagliuso [1]
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**TH.C-P10 - Magnetic phase diagram of MnSi inferred from ultrasound studies**

A. Petrova [1], S. Stishov [1]
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**TH.C-P11 - Anomalous structural, magnetic, optical and electronic properties of $GdCoO_{3-y}$**

S. Ovchinnikov [1], Y. Orlov [1], V. Dudnikov [1], N. Kazak [1], K. Shaikhutdinov [1]
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**TH.C-P12 - Non-random substitutions and magnetic ordering in $Fe_{7-y}M_yX_8$ (M = Ti, Co; X = S, Se)**

N. Baranov [1,2], P. Ibrahim [2], N. Selezneva [2], A. Gubkin [1,2], A. Volegov [2], D. Shishkin [1,2]
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**TH.C-P13 - Critical exponents of inhomogeneous ferromagnetic $La_{0.8}Sr_{0.2}CoO_3$ single crystal**

M. Nandi [1], N. Khan [1], B. Samantaray [1], P. Mandal [1], D. Prabhakaran [2]
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**TH.C-P14 - Tuning magnetostructural transformation temperature in anti-perovskite compounds**

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**TH.C-P15 - Ground-State and magnetocaloric properties of a spin-electron double-tetrahedral chain**

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**TH.C-P16 - Investigation of magnetic and magnetoelastic properties of the unconventional heavy-fermion compound $CeCu_2Ge_2$ (CCG)**

M. Doerr [1], S. Granovsky [1,2], M. Rotter [1,3], Z. Wang [4], A. Schneidewind [5], M. Loewenhaupt [1]
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**TH.C-P17 - A new phase in antiferromagnets below the saturation field**

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**TH.C-P18 - Magnetic field induced phase transition in $PdCrO_2$**

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**TH.C-P19 - Pressure-induced novel electronic state of $Fe_{70}Ni_{30}$ Invar alloy**

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**TH.C-P20 - Single crystal growth and characterization of**

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**TH.C-P21 - Structural and magnetic changes in $Co_xFe_{3-x}O_4$ spinels at high pressure**

G. Subías[1],V. Cuartero[2], J. Blasco[1], J. García [1], S. Lafuerza[2], S. Pascarelli[2], O. Mathon[2], C. Strohm[2], K. Nagai[3], M. Mito[3], G. Garbarino[2] and C. Popescu[4]
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**TH.C-P23 - Spin order in $FeCr_2O_4$ observed by mössbauer spectroscopy**

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**TH.C-P25 - Single crystal growth and characteristics of $Sm_{0.7}Tb_{0.3}FeO_3$ orthoferrite single crystal with spin-reorientation in room temperature**

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**TH.C-P26 - Pressure-induced magnetic order in a gapped quantum magnet**

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**TH.C-P27 - First-order magnetization process as a tool for magnetic-anisotropy description of $U_3Cu_4Ge_4$**

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**TH.C-P28 - Substitution in $LiMF_4$: a playground of fundamental interactions**

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**TH.C-P33 - Magnetic entropy change in materials with first- order magnetic transitions under cycling**

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**TH.C-P34 - dependence of morin temperature on the size of hematite nanoparticles**

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**TH.C-P35 - Specific heat and ESR in borate $TbAl_3(BO_3)_4$**

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**TH.C-P36 - Towards a simple description of magnetism in heavy rare earth elements: application to magnetic refrigeration.**

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**TH.C-P37 - Influence of grain size in the magnetic and magnetocaloric transitions in $La_{0.5}Ca_{0.5}MnO_3$ probed by direct and indirect methods**

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**TH.C-P38 - High temperature magnetic properties and spin-lattice coupling of magnetoelectric epsilon-$Fe_2O_3$**

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**TH.C-P39 - Charge order in magnetite below the verwey transition studied by combination of $^{57}Fe$ NMR and mössbauer spectroscopy**

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**TH.C-P40 - Magnetocaloric effect in quaternary heusler alloys**

V. Prudnikov [1], I. Rodionov [1], I. Titov [1], M. Blinov [1], A. Novikov [1], E. GanÆshina [1], A. Sokolov [2], I. Zakharchuk [3], E. Lähderanta [3], A. Granovsky [1]

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**TH.C-P41 - Enhanced NMR in entangled nuclear-electronic quantum magnet $LiHoF_4$**

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**TH.C-P42 - Ferromagnetism in partially oxidized CuCl**

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**TH.C-P43 - Irreversibility induced by thermal cycles in phase separated manganites**

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**TH.C-P44 - Key role of rutile structure for layered magnetism in chromium compounds**

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**TH.C-P45 - Low-temperature specific heat and magnetic ordering in $R_2Pd_2In$**

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**TH.C-P46 - Magnetic systems at elevated temperatures by relativistic disordered local moments theory**

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**TH.C-P47 - Possible decoupling of the magnetic field instabilities in the antiferromagnet CeRh2Si2 close to its critical pressure in pulsed magnetic fields.**

D. Braithwaite [1], W. Knafo [2], R. Settai [3], D. Aoki [1,4], S. Kurahashi [5], J. Flouquet [1]
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**TH.C-P49 - Necessary conditions for the long-time variation of magnetic structure in frustrated magnets**

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**TH.C-P50 - Instability of ferromagnetic Fe nanoclusters produced in amorphous $SiO_2$ by ion implantation**

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**TH.C-P51 - Pressure effect on the magnetic phase diagram of $Nd_2RhIn_8$**

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**TH.C-P52 - Strong anisotropy and multiple phase transitions in the noncollinear incommensurate antiferromagnets $EuRhGe_3$ and $EuIrGe_3$**

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**TH.C-P53 - Field-induced magnetic phase transitions in $Ho_7Rh_3$ single crystal**

T. Tsutaoka [1], K. Obata [1], A. Sherstobitov [2,3], E. Gerasimov [3], P. Terentev [3], A. Gubkin [2,3] , N. Baranov [2,3]
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**TH.C-P54 - High-field quantum phase transitions induced by weak three dimensionality in triangular-lattice antiferromagnets**

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**TH.C-P55 - Magnetic properties of quasicrystalline (i-phase) $Ti_{45}Zr_{38}Ni_{17}$ alloy**

D. Rusinek [1], J. Przewoznik [1], L. Gondek [1], A. Takasaki [2], A. Hoser [3]
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**TH.C-P56 - Dipolar-coupled heisenberg spins system $LiGdF_4$**

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**TH.C-P57 - Ferromagnetic resonance of magnetic sublattices in Sc-substituted barium hexaferrite**

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**TH.C-P58 - Extremely wide 1/3-magnetization plateau extended to megagauss magnetic fields in a distorted kagome volborthite Cu-3V2O7(OH)2-E2H2O**

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**TH.C-P59 - First principles study on solid oxygen using van der waals density functional**

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**TH.C-P60 - Magnetic properties of two-dimensional heisenberg antiferromagnet alpha-RbCrF4**

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**TH.C-P61 - Magnetic resonance in the chiral helimagnet $CrNb_3S_6$**

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**TH.C-P63 - I-II-III phase transitions in $CeB_6$ observed by high-resolution x-ray diffraction**

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**TH.C-P65 - Paramagnetic-diamagnetic transition in $Cd_{0.9985}Dy_{0.0010}\square_{0.0005}MoO_4$**

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**TH.C-P66 - Phase transition of mobile potts model for liquid crystals**

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**TH.C-P68 - Spin frustration in the spin-1/2 ising-heisenberg model on triangulated husimi lattices: exact results**

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**TH.C-P70 - Magnetism of alpha-Sr2MO4 (M = V, Cr) with $K_2NiF_4$-type structures**

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**TH.C-P71 - Pressure effect on transport properties of $EuNi(Si_1\text{-}xGex)_3$ compounds**

K. Uchima [1], Y. Takaesu [1], H. Akamine [2], M. Kakihana [2], K. Tomori [2], A. Teruya [2], M. Hedo [3], T. Nakama [3], K. Yagasaki [3], K. Matsubayashi [4], I. Uwatoko[4]
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**TH.C-P74 - Application of the oguchi method for studies of the hubbard model**

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**TH.C-P75 - Magnetic phase diagram determination of Ce pnictides by resonant X-ray magnetic scattering**

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**TH.C-P76 - Extreme sensitivity of magneto-structural transitions in Ni2Mn-Ga-based heusler alloys to pulsed high magnetic field**

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**TH.C-P77 - Magnetic anisotropy in antiferromagnet $GdB_6$**

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**TH.C-P78 - Spin polarons and magnetic ground state in $PrB_6$**

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**TH.C-P79 - Thermodynamic properties of the S=1 heisenberg square-lattice antiferromagnet $Ni(pz)_2Br_2$**

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**TH.C-P80 - Successive magnetic ordering in quasi-2D T'-$La_2CuO_4$**

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**TH.C-P81 - Study of the effective magnetic anisotropy in the $MnCr_2O_4$ cubic spinel**

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**TH.C-P82 - Investigation of the relation between hysteresis and ferromagnetism in $Mn_3GaC$**

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**TH.C-P83 - Magnetization study of cobalt ferrite by mean field approximation**

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**TH.C-P84 - Inverse and conventional magnetocaloric effects in $Fe_7Se_8$ single crystal**

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**TH.C-P85 - Magnetic properties of $Sm_2Fe_{17}$ single crystal**

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**TH.C-P86 - Correlating structural and magnetic properties in phase separated manganites**

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**TH.C-P87 - Ab initio construction of magnetic phase diagrams in alloys: The case of $Fe_{1-x}Mn_xPt$**

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**TH.C-P88 - Strategies for increasing the Néel temperature of magnetoelectric antiferromagnets**

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**TH.C-P89 - Effect of third element on spin state of europium in its 1-2-2 pnictides: ESR data**

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**TH.C-P90 - Successive component-separated magnetic transitions on pseudoternary compounds $Ho_{1-x}Gd_xRh_2Si_2$**

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**TH.C-P91 - Magnetic susceptibility and anisotropy probed by terahertz spectroscopy of spin waves in rare earth orthoferrites**

E. Constable [1,2], R. Lewis [2] , J. Horvat [2], Z. Cheng [2], S. Cao [3], S. Yuan [3], G. Ma [3]
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**TH.C-P92 - Picosecond emergence and control of the photo-induced magnetization across the morin transition in $DyFeO_3$**

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**TH.C-P93 -** μSR study on the phase transition from antiferromagnetic Mott-insulator to non-magnetic metal in K-Rb alloy and Rb clusters in sodalite

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**TH.C-P94 - Crystal structure and physical properties of the novel $EuPdSn_2$ compound**

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**TH.C-P96 - Magnetic properties and negative magnetocaloric effect in Mn(-Ru-Rh)As**

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**TH.C-P97 - Neutron depolarisation imaging of the ferromagnetic quantum phase transition in $ZrZn_2$**

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**TH.C-P98 - Correlation between electrical properties and antiferromagnetic ordering in brownmillerite-type $Ca_2Fe_2O_5$**

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**TH.C-P99 - The uniaxial pressure effect on the magnetic phase transitions in spin-lattice coupled system $CuFeO_2$**

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**TH.C-P100 - Quantum phase transitions and staggered dimer order in the J1 – J1' – J2 frustrated anisotropic exchange antiferromagnetic Heisenberg model**

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**TH.C-P102 - Fisherfs relations between magnetic susceptibilities and heat capacity on ising antiferromagnet at temperatures near neel point.**
Y. Satake [1], T. Shirane [1]
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**TH.C-P103 - Low Temperature Magnetic Properties of a New Quasi-one-dimensional Organic Magnet alpha-2-Cl-4-F-V**
Y. Kono [1], S. Kittaka [1], T. Sakakibara [1], H. Yamaguchi [2], Y. Hosokoshi [2]
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**TH.C-P104 - Effect of pressure on magnetic and transport properties in the lightly electron-doped manganite compound Sr-**substituted $CaMn_{0.95}Sb_{0.05}O_3$
T. Aoyagi [1], M. Matsukawa [1], H. Takahashi [1], H.Taniguchi [1], S. Kobayashi [1], S. Nimori [2], R. Suryanarayanan [3]
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**TH.C-P105 - Metamagnetic transitions in $La_{0.5}Pr_{0.5}Mn_2Si_2$**
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**TH.C-P107 - Exotic spin structures and phase transitions in a complex magnetoelectric CuB2O4 as evidenced by optical linear dichroism studies**
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**TH.C-P108 - Stabilizing the ferromagnetic ordering of Co nano-assemblies on graphene by dipolar interaction**

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**TH.C-P109 - Thermodynamic properties of $NdCu_4Au$**

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**TH.C-P110 - Magnetic characterization of $YbMn_2Sb_2$ single crystals**

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**TH.C-P111 - Electromagnetic waves emitted from spiral magnetic at phase transition**

D. Kuzmin [1], I. Bychkov [1], A. Kamantsev [2], V. Koledov [2], V. Shavrov [2]
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**TH.C-P112 - Modeling of first order phase transitions kinetics in systems with coupled order parameters**

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**TH.C-P114 - Effect of Cu-substitution on Magnetic State of Mn2NiGa Heusler alloy**

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**TH.C-P115 - Low-temperature properties of transition-metal and rare-earth diborides**

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**TH.C-P116 - CuMnSb: between local and itinerant antiferromagnetism**

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**TH.C-P118 - High pressure phase diagram of the singlet-ground-state magnet $CsFeCl_3$**

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**TH.C-P119 - Spin relaxation process in Cr_{1-x}Fe_{x}**

S. Säubert [1,2], G. Benka [2], P. Schmakat [1,2], J. Kindervater [3], A. Bauer [2], J. N. Wagner [4], W. Häussler [1], O. Holderer [1], S. M. Shapiro [5], P. Böni [3], C. Pfleiderer[2]
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**TH.C-P120 - Magnetic structure of the ordered kondo compound YbNi3Al9 single crystal**

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**TH.C-P122 - in MnSi**

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**TH.C-P124 - Competing interactions in ErxPr(1−x)Co2 **

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**TH.C-P126 - Thermal expansion and magnetostriction of $Pr_3Pd_{20}Ge_6$**

O. Iwakami [1], Y. Yao [1], S. Abe [1], K. Matsumoto [1], G. Ano [2], M. Akatsu [3], K. Mitsumoto [1], Y. Nemoto [1], T. Goto [1], N. Takeda [4], H. Kitazawa[5]
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**TH.C-P127 - Synthesis and characterization of compositionally graded Fe-Rh films**

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D. Actinides & Lanthanides

**TH.D-P01 - Full potential calculation of magnetic properties of $TbFe_2$**

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**TH.D-P02 - High-field magnetoelasticity of $Tm_2Co_{17}$**

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**TH.D-P03 - Ferromagnetism in UCoAl induced by Os doping**

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**TH.D-P04 - Single crystal study of layered $U_nRhIn_{3n+2}$ materials: case of the novel $U_2RhIn_8$ compound**

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**TH.D-P06 - Effect of pressure on magnetothermal properties and glassy dynamics in magnetization in $Nd_7Pd_3$**

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**TH.D-P07 - Control of magnetic properties in alpha-$Dy_2S_3$ single crystal by using magnetic field**

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**TH.D-P08 - Magnetic properties of double doped $UH_3$ -based hydrides**

M. Paukov [1], I. Tkach [1], D. Drozdenko [1], P. Minárik [1], D. Kriegner [1], Z. Matej [1], S. Masková [1], L. Havela [1]
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**TH.D-P09 - Hexanuclear lanthanide clusters exhibiting magnetic chilling and relaxation properties**

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**TH.D-P11 - Metamagnetic transition in $TmCo_4Al$**

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**TH.D-P12 - *I-V* characteristics in $CdMoO_4$:$Nd^{3+}$ single crystal**

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**TH.D-P13 - Magnetic properties of $NdPd_5Al_2$**

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**TH.D-P15 - Searching for superconductivity in $NpAl_2$: a study of low temperature ground state properties**

J. Griveau [1], E. Colineau [1], L. Martel [1], R. Eloirdi [1], R. Caciuffo [1]
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**TH.D-P17 - 5d-3d antiferromagnetic spin coupling of Tm and Lu adatoms with Fe monoatomic islands on W(110) probed by spin-polarized tunneling microscopy**

D. Coffey [1,2], J. L. Diez-Ferrer [1], D. Serrate [1,2], M. Ciria [2,3] C. de la Fuente [2,3], J. I. Arnaudas [1,2]
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**TH.D-P18 - Optical and magneto-optical interactions in Co doped CeO2 thin films prepared by pulsed laser deposition**

M. Zahradnik [1], M. Kucera [1], R. Antos [1], M. Veis [1], J. Mistrik [2], L. Bi [3], H. Kim [3], G. F. Dionne [3], C. A. Ross [3]
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**TH.D-P19 - Deviations from Matthiessen rule and resistivity saturation effects in rare-earth metals revealed in first principles calculations**

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**TH.D-P20 - Crystal field effects in polymorphic compound $TbIr_2Si_2$**

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**TH.D-P21 - Non-equilibrium behavior of the magnetization in the helimagnetic phases of the rare earth alloys R_{1-x}Y_{x} (R = Gd, Tb, Dy)**

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**TH.D-P22 - Charge density wave stabilization in LaSb$_2$ by Ce ion substitution**

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**TH.D-P23 -** Magnetic phase diagram of non-kramers $\Gamma_3$ doublet system $prpb_3$by specific heat measurements

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**TH.D-P24 - Magnetic properties of $CePtIn_4$**

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**TH.D-P25 - Site-selective magnetic order of neptunium in $Np_2Ni_{17}$**

A. Hen [1], E. Colineau [1], R. Eloird [1], J.-C. Griveau [1], N. Magnani [1], J.-P. Sanchez [2], I. Halevy [3,4], I. Orion [3], A. B. Shick [5], R. Caciuffo [1]
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E. Metal spintronics

**TH.E-P01 - Ab initio theory of the gilbert damping in random alloys: the torque-correlation formulation**

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**TH.E-P02 - Relativistic effects on electron transport in magnetic alloys**

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**TH.E-P03 - Modulation of the amplitude of spin transfer torque in double barrier magnetic tunnel junctions**

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**TH.E-P04 - The study of the spin proximity effect from a solution of the modified boltzmann transport equations**

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**TH.E-P05 - Resonant magnetoresistance in asymmetrical double-barrier magnetic tunnel junction**

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**TH.E-P06 - Spin-pumping using the $Ni_{80}Fe_{20}$ thin film annealed in a magnetic field**

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**TH.E-P08 - Enhanced giant magnetoresistance signals in lateral spin valves**

G. Zahnd [1,2], Y, T. Van Pham [1, 2], W. Savero Torres [1,2], P. Laczkowski [1,2], L. Vila [1,2], V. Dai Nguyen[1,2], J.C. Rojas Sanchez [1,2], Alain Marty [1,2], C. Vergnaud [1,2], C. Beigné [1, 2], L. Notin[1,2], M. Jamet [1,2], J. Attané[1,2]
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**TH.E-P09 - Modulation of pure spin currents with a ferromagnetic insulator**

E.Villamor [1], M. Isasa [1], S. Vélez [1], A. Bedoya-Pinto [1], P. Vavassori [1,2], L. E. Hueso [1,2], F. S. Bergeret [3,4], F.Casanova [1,2]
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**TH.E-P10 - Spin current transport in a Nb/Cu/NiFe tri-layer structure**

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**TH.E-P11 - Study of the ferromagnetic resonance properties in epitaxial FePt samples**

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**TH.E-P12 - Large extrinsic spin hall effect in gold based alloys**

P. Laczkowski [1], J. Rojas-Sánchez [1], W. Savero-Torres [2], N. Reyren [1], C. Deranlot [1], J. George [1], H. Jaffrès [1], A. Fert [1], L. Notin [2], C. Beigné [2], A. Marty[2], J. Attané[2], L. Vila[2]
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**TH.E-P15 - Spin-orbit torque measurement by magneto-optical Kerr effect with circularly polarized light**

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**TH.E-P16 - Lateral spin transport in a Cu narrow strip fabricated on a magnetic insulating film**

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**TH.E-P18 - Temperature dependence of inverse rashba-edelstein effect at metallic interface**

A. Nomura [1], T. Tashiro [1], K. Ando [1]
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**TH.E-P19 - Theoretical analysis on the anomalous hall conductivity of disordered Fe50Co50 alloys; effects of electron lifetime depending on the magnetic quantum number**

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**TH.E-P20 - Spin hall magnetoresistance in absence of proximity effects in Pt/$CoFe_2O_4$ bilayers**

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**TH.E-P22 - Unidirectional spin hall magnetoresistance in ferromagnet/normal metal bilayers**

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F. Domain wall motion

**TH.F.P27 - Vortex domain wall trapping via asymmetric notches**

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**TH.F-P01 - Field and current driven magnetic domain wall motion in disordered $A_1$-FePt nanowires**

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**TH.F-P03 - Simulation of the field-driven magnetic domain wall motion under the dzyaloshinskii-moriya interaction**

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**TH.F-P04 - Effect of electric current on domain wall dynamics in nanocrystalline FeCoMoB microwire**

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**TH.F-P05 - Evidence for chiral magnetic domain-wall in ferrimagnetic Gd-FeCo wires**

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**TH.F-P06 - Fast DW motion through the annihilation of vertical bloch lines induced by dzyaloshinskii-moriya interaction**

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**TH.F-P07 - Magnetic origami**

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**TH.F-P08 - Domain walls in thin film magnets/TI junctions**

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**TH.F-P09 - Ultrafast dynamics of current induced motion of magnetic domain wall in permalloy sublayer in bilayer niobium-permalloy structure.**

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**TH.F-P10 - Pure spin current injection and detection device based on magnetic domain walls**

L.Vila [5], T. Van Pham [1], W. Savero Torres [2], G. Zahnd [3], P. Laczkowski [4], V. Dai Nguyen [6], J. Rojas Sanchez [7], A. Marty [8], C. Vergnaud [9], C. Beigné [10], L. Notin[11], M. Jamet[12], J. Attané[13]
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**TH.F-P11 - Magnetic bubblecade memory based on chiral domain walls**

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*2. Department of Physics and Astronomy, Seoul National University, Republic of Korea*
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**TH.F-P12 - Magnetization dynamics of iron garnet crystals in oscillating magnetic field**

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**TH.F-P13 - Dimensional crossover in stochastic behavior of magnetic domain-wall creep motion**

T. Taniguchi [1], K. Kim [1], T. Tono [1], T. Moriyama [1], T. Ono [1]
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**TH.F-P14 - Head-to-head domain wall structures in wide permalloy strips**

V. Estevez [1], L. Laurson [1]
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**TH.F-P15 - Non-uniform internal degrees of freedom in field-driven extended domain walls in perpendicular media**

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**TH.F-P16 - Influence of asymmetric geometry on domain wall chirality detected in Y-shaped nanowires**

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**TH.F-P17 - Manipulation of domain wall motion in Ta-CoFeB-MgO ultrathin films by making use of sub-nanometer steps modulation**

A. Digiacomo [1], R. Mantovan [1], N. Vernier [2], T. Devolder [2], K. Garcia [2], G. Tallarida [1], M. Fanciulli[1,3], B. Ocker [4], L. Baldi [5], M. Mariani [5], D. Ravelosona[2]
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**TH.F-P19 - Enhancement of spin-orbit torque and Dzyaloshinskii-Moriya interaction in Co films sandwiched by various 3d, 4d, and 5d transition metals**

C. Cho [1], S. Yun [1], H. Whang [1], D. Kim [1], D. Kim [1], J. Moon [1], S. Je [1], Y. Oh [2], B. Park[2], S. Choe [1]
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**TH.F-P20 - Quantitative scaling of magnetic avalanches in soft materials**

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**TH.F-P21 - Improvement of current induced domain wall motion in TbFeCo wire on plastic substrates**

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**TH.F-P22 - Current induced domain wall motion along current direction in Pt/GdFeCo(110nm)/SiO_2/Si sub. magnetic nanowire**

Y. Kurokawa [1], M. Kawamoto [1], H. Awano [1]
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**TH.F-P23 - Analytical modeling of magnetic domain wall motion under applied fields and currents**

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**TH.F-P24 - Current-driven vortex domain wall motion in wire-tube nanostructures**

A. Espejo [1,2], N. Vidal-Silva [1], J. A. López-López [3], D. Goerlitz [2], K. Nielsch [2], J. Escrig [1,4]
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**TH.F-P25 - Electric-current-induced dynamics of bubble domains in TbFeCo wires of various compositions with different cap layers**

M. Tanaka [1], H. Kanazawa [1], S. Sumitomo [1], S. Honda [2], K. Mibu [1], H. Awano [3]
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**TH.F-P26 - Investigation of vortex domain wall motion in permalloy nanowire with nano-constriction**

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**TH.F-P28 - DeltaE effect and magnetomechanical damping in the re-entrant spin glass state of ferromagnetic bulk metallic glasses**

J. Torrens-Serra [1], F. Solivelles [1], S. Kustov [1]
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**TH.F-P29 - Walker breakdown of domain wall motion driven by spin waves in perpendicular magnetic anisotropy nanostrip**

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G. Electric field effect on magnetic systems

**Th.G-P01 - Reversible control of ferromagnetism in $Fe_3O_4$ via lithium insertion/extraction**

G. Wei [1], Y. Chen [1], S. Xiao [1]
*1. School of Physics, Shandong University, China*

**Th.G-P02 - Computer simulation of domain wall motion induced by a slope electric field**

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**Th.G-P03 - Electric field control of current-induced domain wall motion**

H. Kakizakai [1], K. Yamad [1], M. Kawaguchi [1], T. Koyama [2], D. Chiba [2], T. Ono [1]
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*2. The University of Tokyo, Japan*

**Th.G-P04 - First-principles density functional study on magnetic-anisotropy-energy non-linear variation by electric field in double Fe/MgO interfaces**

D. Yoshikawa [1], M. Obata [1], S. Haraguchi [1], Y. Taguchi [1], T. Oda [1,2]
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**Th.G-P05 - Electric-field effect on magnetism of L10-FePt investigated by the x-ray magnetic circular dichroism spectroscopy**

S. Miwa [1,4] K. Matsuda [1], K. Tanaka [1], T. Nozaki [2,4], F. Bonell[1], S. Yuasa [2,4], M. Suzuki [3], Y. Suzuki[1,2,4]
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**Th.G-P06 - Electric-field-controlled magnetization rotation and tunneling magnetoresistance of magnetic tunnel junctions at room temperature**

Y. Zhao [1,3], P. Li [1], A. Chen [1], D. Li [2], S. Zhang [1,3], L. Yang [1], Y. Liu [1], M. Zhu [1], H. Zhang[1], X. Han [2]
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**Th.G-P07 - Underlayer material dependence of perpendicular magnetic anisotropy in CoFeB/MgO tuned by electric fields**

W. Skowronski [1,2], T. Nozaki [2], Y. Shiota [2], S. Tamaru [2], K. Yakushiji [2], H. Kubota [2], A. Fukushima[2], S.Yuasa [2], Y. Suzuki [2]
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**Th.G-P08 - Electric-Field modulation of magnetic anisotropy in the system under magnetic proximity effect**

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**Th.G-P10 - Electric field effect on induced magnetic moment in Pd**

A. Obinata [1], D. Hayakawa [1], Y. Hibino [1], T. Koyama [1], K. Miwa [2], S. Ono [2], D. Chiba [1]
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**Th.G-P11 - Correlation between resistive switching behavior and ferromagnetism in pure ZnO thin films**

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**Th.G-P12 - Magnetoresistance in amorphous alloys and thin ferromagnetic films**

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**Th.G-P13 - Voltage controlled optical and magnetic properties in ferromagnetic nanostructures studied by optical spectroscopies**

L. Ohnoutek [1], L. Beran [1], R. Antos [1], M. Veis [1], A. Jun Tan [2], U. Bauer [2], G. S. D. Beach [2]
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**Th.G-P14 - Electric field control of superparamagnetism in Ni/Cu system using electric double layer**

K. Yamada [1], H. Kakizakai [1], T. Koyama [2], S. Ono [3], K. Miwa [3], M. Kawaguchi [1], D. Chiba [2], T. Ono [1]
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*2. Department of Applied Physics, The University of Tokyo, Japan*
*3. Central Research Institute of Electric Power Industry, Japan*

**Th.G-P15 - Direct imaging of reversible electric control of magnetic domains in $La_2/3Sr_1/3MnO_3$**

M. Foerster [1], D. Pesquera [2], B. Casals [2], F. Sanchez [2], G. Herranz [2], L. Aballe [1], J. Fontcuberta[2]
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**Th.G-P17 - Distinguishing spin-torque from electrical modification of anisotropy in voltage-induced ferromagnetic resonance**

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**Th.G-P19 - Electrical writing of magnetic and resistive multistates in CoFe films deposited onto Pb[ZrxTi$_1$-x]O$_3$**

V. Iurchuk [1], B. Doudin [1], J. Bran [1], Bohdan Kundys [1]
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H. Spin caloritronics

**Th.H-P01 - Anomalous and planar righi-leduc effect in NiFe and YIG ferromagnets**

B. Madon [1], D. Pham [1], D. Lacour [2], A. Anane [3], B. Rozenn [3], V. Cros [3], M. Hehn [2], J. Wegrowe [1]
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**Th.H-P02 - Spin-dependent Peltier effect in a lateral spin-valve device with epitaxial Heusler-compound electrodes**

K. Yamasaki [1], S. Oki [1], S. Yamada [1], T. Kanashima [1], K. Hamaya [1,2]
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**Th.H-P03 - Observation of spin-dependent peltier effect using anomalous nernst effect**

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**Th.H-P04 - Spin-thermoelectric voltage in the ste element using LPE YIG films grown on GGG substrates**

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**Th.H-P05 - Thermal spin current generation in $Fe_3O_4$/Pt thin films**

R. Ramos [1], T. Kikkawa [2,3], A. Anadón [1,4], I. Lucas [1,5], M. H. Aguirre [1,4,6], K. Uchida [2,3,7], H. Adachi[3,8,9], P. A. Algarabel [4,10], L. Morellón [1,4], S. Maekawa [3,8,9], E. Saitoh [2,3,8], M.R. Ibarra [1,4,6]
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**Th.H-P06 - Magnetic field induced spin wave energy focusing**

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**Th.H-P07 - Longitudinal spin seebeck effect in Bi-substituted neodymium iron garnet on GGG substrate prepared by MOD method**

H. Asada [1], A. Kuwahara [1], K. Sueyasu [1], T. Ishibashi [2], Q. Liu [2], G. Lou [2], K. Kishimoto[1], T. Koyanagi [1]
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**Th.H-P08 - Study of the magnon difusion length in $Fe_3O_4$ thin films**

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**Th.H-P09 - Optically-reconfigurable magnetic materials for the control of spin waves**

M. Vogel [1], A.V. Chumak [1], E. H. Waller [1], T. Langner [1], V. I. Vasyuchka [1], B. Hillebrands [1], G. von Freymann [1,2]
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**Th.H-P10 - Two sign changes of spin seebeck effect in compensated ferrimagnets**

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**Th.H-P11 - Comprehensive study of nickel - zinc ferrites as an opportunity for spincaloritronic applications**

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**Th.H-P12 - Enhancement of spin-injection-induced electrical voltage using thermally excited CoFeAl film**

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**Th.H-P13 - Utilization of antiferromagnetic electrodes in magneto-thermoelectric device for large area application**

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**Th.H-P14 - Longitudinal spin-seebeck effect in cobalt-ferrite epitaxial thin films with different preferential axes**

T. Niizeki [1], T. Kikkawa [1], K. Uchida [1], M. Oka [1], K. Z. Suzuki [1], H. Yanagihara [1], E. Kita [1], E. Saitoh [1]
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**Th.H-P15 - Spin-thermoelectric transport in quantum spin hall systems beyond linear response**

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**Th.H-P16 - Thermal and thermal gradient effects on microwave power spectral density of MgO based MTJ nanopillars**

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**Th.H-P17 - Non-equilibrium thermodynamics of the longitudinal spin seebeck effect**

V. Basso [1], E. Ferraro [1], A. Sola [1], A. Magni [1], M. Kuepferling [1], M. Pasquale [1]
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**Th.H-P18 - Microwave-induced spin currents in ferromagnetic-insulator|normal-metal bilayer system**

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**Th.H-P20 - Spin-dependent thermoelectric transport in T-shaped double-quantum-dot systems**

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I. Fast and ultrafast magnetization dynamics

**Th.I-P01 - Transient exchange Interaction in a helical antiferromagnet**

K. Dumesnil [1], M.C. Langner [2], S. Roy [3], A.F. Kemper [4], Y.D. Chuang [3], S.K. Mishra [3], R.B. Versteeg [3], Y Zhu [2], M.P. Hertlein [3], T.E. Glover [3], R.W. Schoenlein[2]
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**Th.I-P02 - Antiferromagnetic writing and reading of an optical polarization state**

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**Th.I-P03 - Ho on Pt(111) as a single-atom memory bit: a quantum master equation analysis**

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**Th.I-P04 - Power dependence of the inverse spin-Hall effect in Py/Pt microstructures**

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**Th.I-P05 - Surface acoustic wave assisted magnetization switching**

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**Th.I-P06 - Enhanced magnetocrystalline anisotropy in an epitaxial array of cobalt nanowires: a ferromagnetic resonance study**

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**Th.I-P08 - Laser-induced ultrafast magnetization dynamic in RE-TM garnets**

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**Th.I-P09 - Stroboscopic ferromagnetic resonance detection depending on laser power**

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**Th.I-P10 - Spin wave mode identification in magnetic semiconductors**

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**Th.I-P11 - Ultrafast laser-induced demagnetization in multisublattice metallic magnets**

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**Th.I-P12 - Simulation of ultrafast spin dynamics in DyCo5**

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**Th.I-P13 - Generation of ultrashort shear acoustic pulses by femtosecond laser demagnetization of magnetostrictive material terfenol**

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**Th.I-P14 - Temperature study of ultrafast photomagnetic effect in YIG:Co garnet films**

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**Th.I-P15 - Magnetization dynamics of a dipolar chain at finite temperature**

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**Th.I-P16 - Time-resolved ferromagnetic resonance in ultrathin perpendicularly magnetized films: efficient nonlinear high order harmonics generation**

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**TH.I-P17 - High-field high-repetition-rate THz sources for studying ultra-fast magnetization dynamics**

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**Th.I-P18 - Nonequilibrium fluctuations in nanomagnets**

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**Th.I-P19 - Magnetization dynamics in low-symmetry iron garnet film induced by femtosecond laser pulses**

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**TH.I-P22 - Magnetic structure and ultrafast spin dynamics in GdFeCo at high magnetic fields**

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**TH.I-P24 - Laser-induced spin precessional dynamics in FeCo/MnGa bilayers with different interfacial exchange couplings**

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**TH.I-P27 - Microwave linewidth broadening of FeCuNbSiB ferromagnetic films: effect of annealing**

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**Th.I-P28 - Emergence of coherent magnetization reversal at dynamic regime: a detailed vectorial-resolved angular-dependent study.**

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**Th.I-P29 - Frequency and field linewidth conversion of FMR spectra only valid for samples with neglegible extrinsic linewidth contribution**

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J. Vortex and skyrmion dynamics

**TH.J-P02 - Switching of the magnetic vortex core in a pac-man disk**

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**TH.J-P03 - Vortex core reversal in patterned magnetic hybrid systems**

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**TH.J-P04 - Engineering 1D potential barrier for fast guided skyrmion motion**

W. Gan [1], I. Purnama [1], H. Tung Fook [1], M. Ramu [1], W. Siang Lew [1]

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**TH.J-P05 - Skyrmion pinning dymanics in nanostructures for diode and symmetric operations**

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**TH.J-P06 - Skyrmion stability on curved surfaces**

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**TH.J-P07 - Spin-current induced magnetization patterns in nanomagnets**

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**TH.J-P08 - Relation between dynamics of magnetic bubbles and electron transport**

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**TH.J-P09 - Topological spin textures as emitters for multidimensional spin wave modes**

V. Sluka [1,2], M. Weigand [3], A. Kakay [1], A. Erbe [1], V. Tyberkevych [4], A. Slavin [4], A. Deac[1], J. Lindner[1], J. Fassbender [1], J. Raabe [5], S. Wintz [1,5]

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**TH.J-P10 - Nonlinear behavior and mode coupling in spin transfer nano-oscillators**

R. Lebrun [1], N. Locatelli [1], F. Abreu Araujo [2], S. Tsunegi [1], A. Jenkins [1], J. Grollier [1], H. Kubota [3], K. Yakushiji [3], A. Fukushima [3], S. Yuasa [3]

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**TH.J-P11 - Advanced dzyaloshinskii-moriya interaction meter based on angular dependence of asymmetric magnetic domain-wall motion**

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**TH.J-P12 - Vortex core reversal by excitation of a higher vortex gyromode (flexure mode)**

G. Dieterle [1], A. Gangwar [1,2], M. Noske [1], J. Förster [1], M. Weigand [1], I. Bykova [1], H. Stoll [1], C. H. Back [2], G. Schütz [1]

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**TH.J-P13 - Spin polarised current induced vortex core expulsion in magnetic tunnel junctions**

A. Jenkins [1], R. LeBrun [1], E. Grimaldi [1], P. Bortolotti [1], S. Tsunegi [1], H. Kubota [2], K. Yakushiji [2], A. Fukushima [2], S. Yuasa [2], V. Cros [1]

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**TH.J-P14 - Real time measurements of vortex core expulsion in magnetic tunnel junctions**

A. Jenkins [1], R. LeBrun [1] , E. Grimaldi [1], P. Bortolotti [1], S. Tsunegi [1], H. Kubota [2], K. Yakushiji [2], A. Fukushima [2], S. Yuasa [2], V. Cros [1]

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**TH.J-P15 - Time-resolved holographic imaging of magnetic vortex dynamics**

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**TH.J-P18 - Effect of the dzyaloshinskii-moriya interaction on the in-plane magnetization of submicronic structures**

M. Cubukcu [1], J. Sampaio [1], A. Khvalkovskiy [2], M. Kuteifan [3], D. Apalkov [2], V. Lomakin[3], V. Cros [1], N. Reyren [1]
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**TH.J-P22 - Theoretical study on spin torque diode effect of a high-magetoresistance tunnel junction having a vortex free-layer and an in-plane polarized reference layer**

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**TH.J-P23 - B20 FeGe thin films elaboration for skyrmions observation**

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**TH.J-P24 - Temperature dependence of the ferromagnetic resonance at the spin reorientation transition of $Mn_2RhSn$ thin films**

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**TH.J-P25 - Observation of spin transfer torques in the transverse magnetic susceptiblity of the Skyrmion lattice phase of MnSi**

F. Rucker [1], A. Bauer [1], C. Schnarr [1], A. Chacón [1], P. Köhler [1], C. Pfleiderer [1]
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**TH.J-P27 - Movement of non-collinear magnetic textures driven by temperature gradients**

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**TH.J-P28 - Emergent electrodynamics in $Mn_{1-x}Fe_xSi$**

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**TH.J-P29 - Resonant perpendicular magnetic field induced interlayer-coupled vortex and other metastable state excitations**

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**TH.J-P30 - Antiferromagnetic Skyrmions**

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**TH.J-P31 - Skyrmion interactions with domain walls in perpendicular magnetized materials**

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**TH.J-P32 - Time-dependence of the topological unwinding of skyrmions in chiral magnets**

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**TH.J-P33 - Spin-mechanical torque spectroscopy of artificial pinning sites in thin magnetic disks**

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**TH.J-P34 - Dynamics of magnetic vortex in disk-on-disk nanostructures**

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**TH.J-P35 - A Polarized neutron approach to chiral magnetism: the case of fege**

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**Th.J-P37 - Spin motive force driven by the skyrmion lattice in the presence of the Rashba spin-orbit interaction**

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K. Thin film nanostructures

**TH.K-P01 - Magnetic behavior of MnAs nano-ribbons**

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**TH.K-P02 - Ferromagnetism in Pd(100) ultrathin films enhanced by distortion**

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**TH.K-P03 - MgO based tunnel junctions**

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**TH.K-P04 - Submicrometric 2d Magnetic Domain Wall Ratchets**

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**TH.K-P05 - Direct observation of deterministic domain wall trajectory in magnetic network structures**

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**TH.K-P07 - 2D Fe-pnictide nanostructure grown on MnAs: Arsenic-bridged magnetic interactions**

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**TH.K-P08 – Resistance behavior in nanostructured $La_2/3Sr_1/3mno_3$ thin film**

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**TH.K-P09 - Domain Structure and magnetoresistance in $Co_2MnGe$ zigzag structures**

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**TH.K-P10 - Surface nanostructure and magnetism of ultrathin Pd(001) films on Au(001)**

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**TH.K-P11 - Controlling the size and relaxation dynamics of superferromagnetic domains**

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**TH.K-P12 - Soft magnetic multilayered thin films for HF applications**

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**Th.K-P13 - Effect of planar magnetocrystaline anisotropy in vortex configuration of micro-scale disks**

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**TH.K-P14 - Structural and magnetic properties of zinc ferrite thin films irradiated by slow highly charged ions**

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**TH.K-P15 - Effect of lattice mismatch on the morphology and magnetic properties for $L1_0$-ordered FePt thin films**

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**TH.K-P16 - Confinement effects in lattices of nanoskyrmions**

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**TH.K-P17 - Splitting of spin-wave modes in periodically perturbed thin films: theory and experiment**

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**TH.K-P18 - Electronic and spin states of $SrRuO_3$ thin films: an X-ray magnetic circular dichroism study**

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**TH.K-P19 - Characterisation of polycrystalline heusler alloys**

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**TH.K-P20 - Spatiotemporal Chaos induced by spin-transfer torque in Nano-pillars**

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**TH.K-P21 - Unusual reversal process in ferromagnetic nanostructures**

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**TH.K-P22 - Anisotropic magnetoresistance in nickel nanostripe fabricated by atomic force microscopy lithography**

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**TH.K-P23 - Magnetic domain structure and spin reorientation transition in atomically flat cobalt ferrite islands**

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**Th.K-P24 - Superexchange interaction in Fe doped manganites probed by x-ray magnetic circular dichroism**

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**Th.K-P25 - 360 degree magnetic domain wall injection via moving magnetic charge**

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**Th.K-P26 - Crystallographical texture and coercivity in nanocrystalline thin films for magnetic recording**

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**Th.K-P27 - Nanostructured supermalloy film on ordered metallic nanohills**

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**Th.K-P28 - Interplay between of "ice-rule" and external magnetic field in inverse opal-like structures**

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**Th.K-P29 - Effect of disorder on the magnetic and electron-transport properties of a prospective spin gapless semiconductor CoFeCrAl**

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**Th.K-P30 - Control of PEDOT orientation in conductive polymer PEDOT:PSS Film through the magnetic effects on oxygen and nitrogen gas**

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**Th.K-P31 - Magnetic properties of Co/Pd multilayers deposited on alumina membranes.**

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**Th.K-P32 - Micromagnetic investigation of planar hall effect sensors for magnetic nanobeads detection**

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**Th.K-P34 - Alternating target laser ablation deposition of Cu doped cobalt ferrite thin films**

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**Th.K-P35 - Tailoring magnetism, magnetoresistance and interactions of nanostructured ZnO-Co films**

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**Th.K-P36 - Role of substrate morphology on magnetic properties of FePd thin alloy film**

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**Th.K-P37 - Hard/soft bilayer thin films and antidots**

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**Th.K-P38 - Synthesis and characterization of PLD CoFe thin films as a function of composition and deposition conditions**

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**Th.K-P41 - Soft X-Ray magnetic circular dichroism studies on magnetic transition metal oxide nanostructures**

E. Pellegrin [1], C. Ge [2, 3], Z. Hu [4], S. Agrestini [4], S.M. Valvidares [1], J. Herrero Martin [1], P. Gargiani [1], A. Barla [5], X. Wan [2], W. Liang [6]
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**Th.K-P43 - Lattice effects on the magnetic and magnetoresistance properties of nanometer-Thick $La_{0.9}Ba_{0.1}MnO_3$ (LBMO) Films and LBMO/$BaTiO_3$/LBMO Heterostructures**

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**Th.K-P44 - Thermal dependencies of the magnetic symmetries of low dimensionality systems, studied with novel variable temperature/full angular range vectorial MOKE technique**

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**Th.K-P46 - Sub-50 nm magnetic tunnel junctions fabrication by reactive ion etch on 150 mm wafers**

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**Th.K-P47 - Enhancement of order degree and perpendicular magnetic anisotropy of L10 ordered Fe(Pt,Pd) alloy film by introducing a thin MgO cap layer**

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**Th.K-P48 - Magnetisation reversal in Co nanoparticle arrays on corrugated MnF2(110) surface**

S. Gastev [1], B. Krichevtsov [1], D. Baranov [1], V. Fedorov [1], S. Suturin [1], N. Sokolov [1], J.L.F. Cuñado [2,3], A. Bollero [2], J. Camarero [2,3]
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**Th.K-P49 - Magnetoresistance of nanometer-scale contacts for paramagnetic metals fabricated by a mechanically break junction technique**

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**Th.K-P55 - Selective suppression of domain wall in artificial spin ice network lattice**

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L. Hybrid nanostructures

**Th.L-P01 - Magnetic properties of FePt-Fe nano-composites with core/shell structure**

R. Kurosu [1], H. Iwama [1], M. Doi [1,2], T. Shima [1,2], A. Kato [3,4], N. Sakuma [3,4], H. Kishimoto [3,4], K. Washio [3,4], M. Yano [3,4]
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**Th.L-P02 - Nickel nanorod/gelatin hydrogels - tracking the genesis of a hybrid material**

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**Th.L-P03 - Domain wall pinning driven by nanoscale phase coexistence in Ni/$V_2O_3$ bilayers**

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**Th.L-P04 - Magnetic and microstructural investigation of $Fe_{79.7-x}TixB_{20}Nb_{0.3}$ glassy alloys for hyperthermia application**

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**Th.L-P05 - Magnetic and structural characterization of hybrid CFO-YBCO nanocomposites prepared by chemical solution deposition**

E. Bartolomé [1], P. Cayado [2], S. Ricart [2], E. Solano [3], M. Coll [2], J. Ros [4], B. Mundet [2], J. Gázquez [2], A. Medelin [5], G. van Tedeloo [5]
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**Th.L-P06 - Magnetotransport properties of $SrTiO_{3-\delta}$ thin films grown by Molecular Beam Epitaxy on p-Si(001) substrates**

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M. Arrays of magnetic nanostructures

**Th.M-P01 - Magnetic and magnetotransport study of the crossover from antidot to dot arrays**

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**Th.M-P02 - The effects of interlayer coupling on the static and dynamic behavior of $Ni_{80}Fe_{20}/Ru/Ni_{80}Fe_{20}$ Nanostripes**

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**Th.M-P03 - Monte Carlo simulation of magnetic properties in Bit Patterned Media**

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**Th.M-P04 - Spin-wave modes and magnetization reversal in ferromagnetic nanostructures subjected to asymmetric magnetostatic interactions**

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**Th.M-P05 - Magnetic vortex states in highly anisotropic nanoislands**

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**Th.M-P06 - Quantized energy states in spin ice due to magnetic coupling**

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**Th.M-P07 - Spin wave bound modes in a circular array of magnetic inclusions embedded into a ferromagnetic matrix**

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**Th.M-P08 - Iron oxide nano needles for single cell analysis**

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**Th.M-P09 - Magnetization reversal in finite size dot arrays: global configurational anisotropy**

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**Th.M-P10 - Magnetic properties of FeCoCu/Cu multilayer nanowire arrays**
E.M. Palmero [1], C. Bran [1], C. Magen [2], R.P. del Real [1], F. Beron [3], M. Vazquez [1]
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**Th.M-P11 - Collective magnetic properties in nanoparticle assemblies highlighted by shape anisotropy and interparticle distances**
B. Pichon [1], D. Toulemon [1], M. Pauly [1], S. Fleutot [1], S. Bégin-Colin [1]
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**Th.M-P12 - Challenges to realising topological control of domain wall transit in artificial spin ice**
W. Branford [1], S. Walton [1], K. Zeissler [1], D. Burn [1], M. Chadha [1], L. Cohen [1]
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**Th.M-P13 - Dipolar interactions in finite arrays of elliptical Fe(001) particles**
M. Hanson [1], T. Antosiewicz [1,2]
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**Th.M-P14 - Magnetic interactions in *3d* metal chains on $Cu_2X/Cu(001)$ (X = N, O): comparison with corresponding unsupported chains**
M.C. Urdaniz [1], M.A. Barral [1,2], A.M. Llois [1,2], A. Saúl [3,4,5]
**Th.M-P15 - Controlling magnetization reversal in planar nanostructures with wire-ring morphology**
R. Corona [1], A. Aranda [1], J.L. Palma [1,2], C. López [1,2], J. Escrig [1,2]
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**Th.M-P16 - Magnetostatic interactions between wire-tube nanostructures**
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**Th.M-P17 - Spectroscopic and spatially resolved magneto-optical characterizations of 1D magnetic gratings**
V. Kletecka [1], L. Beran [1], R. Antos [1], M. Veis [1]
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**Th.M-P18 - Thermal ordering and correlations in an artificial two-dimensional Ising system**
U. Arnalds [1], J. Chico [2], H. Stopfel [2], V. Kapaklis [2], O. Bõrenbold [2], M. Verschuuren [3], U. Wolff [4], V. Neu [4], A. Bergman [2], B. Hjörvarsson [2]
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**Th.M-P20 - Highly anisotropic dynamical magnetic properties of needle-shaped arrays of iron oxide nanocubes**

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**Th.M-P21 - Magnetostatic coupling in arrays of FeCo monolayer and bilayer long aspect ratio nanoribbons**

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**Th.M-P22 - Template morphology dependent control of magnetic interactions between magnetic nanostructures**

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N. Magnetophotonics and magnetoplasmonics

**Th.N-P01 - Superparamagnetic gold nanotriangles by microwave polyol synthesis**

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**Th.N-P02 - Optimization of MTJ nano-contact on pn-GaAs photodetector for a high-speed non-volatile optical memory**

V. Zayets [1], H. Saito [2], K. Ando [3], S. Yuasa [4]

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**Th.N-P03 - Experimental demonstration of long-distance propagation of a surface plasmon on the surface of a ferromagnetic metal**

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**Th.N-P04 - Using antiferromagnets as a route to tunable negative refraction**

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**Th.N-P05 - Plasmonic hollow cylindrical nanostructures fabricated by nano-imprint lithography and non-directional metallization**

A. Conde-Rubio [1], M. Kovylina [1,2], N. Alayo [3], X. Borrisé [3], F. Pérez-Murano [3], G.D. Hibbard [2], A. Labarta [1], X. Batlle [1] N

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**Th.N-P06 - Enhancement of transverse magneto-optical intensity effect in active magneto-plasmonic structures**

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**Th.N-P07 - Faraday Rotation in (Bi, Gd, Al):YIG Films and Microcavity 1D-MPCs on their base in temperature range 300 - 20K**

V.N. Berzhansky [1], A.V. Karavainikov [1], T.V. Mikhailova [1], A.R. Prokopov [1], A.N. Shaposhnikov [1], M.A. Kozhaev [2,3] Y, M.F. Kharchenko [4], I.M. Lukienko [4], O.V. Miloslavskaya [4], Y.M. Kharchenko [4]

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**Th.N-P08 - One-dimensional photonic crystals with double-layered magneto-active defects**

V.N. Berzhansky [1], A.V. Karavainikov [1], T.V. Mikhailova [1], A.R. Prokopov [1], A.N. Shaposhnikov [1], M.A. Kozhaev [2,3], M.F. Kharchenko [4], I.M. Lukienko [4], O.V. Miloslavskaya [4], Y.M. Kharchenko [4]

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**Th.N-P09 - Magnetic behavior of $SiO_2$ opals with embedded Fe nanoparticles**

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**Th.N-P10 - Light localization and magneto-optic enhancement in Ni and Co anti-dot arrays**

E. Papaioannou [1], M. Rollinger [1], E. Melander [2], P. Thielen [1], E. Ístman [2], V. Kapaklis [2], M. Cinchetti [1], A. Carcia-Martin [3], M. Aeschlimann [1]

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**Th.N-P11 - Optical, magneto-optical and structural properties of Mn(2) Rh(1-x)Co(x)Sn Heusler compounds**

J. Hamrle [1], K. Postava [1], J. Pistora [1], R. Silber [1], J. Enders [2], P. Cejpek [2], J. Macek [2], M. Veis [2], V. Hol² [2], O. Meshcheriakova [3]

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**Th.N-P12 - Magnetic switching of magnetoelectric plasmonic materials: from axion to toroidal electrodynamics**

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**Th.N-P13 - Spin dynamics in magneto-plasmonic hybrid nanostructures**

A. Capozzi [1], T. Orlando [2], M. Mariani [3], F. Pineider [4], M. Basini [5], M. Corti [2], E. Umut [6], C. Sangregorio [4], A. Lascialfari [5], P. Ghigna [7]

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**Th.N-P14 - Magnetoplasmonic modes in noble metal and hybrid nanoparticles**

C. de Julian Fernandez [1,2], F. Pineider [2,3], V. Bonanni [2,3], G. Campo [2,4], G. Mattei [5], A. Caneschi [2], C. Sangregorio [6,2]

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**Th.N-P15 - Nanostructural and magnetic properties in Au- Fe oxide magnetoplasmonics nanostructures**

C. de Julian Fernandez [1,2], F. Pineider [2,3], G. Campo [2], V. Bonanni [2,3], P. Massala [4], V. Videtta [5], D. Pantaleone Cozzoli [5], M. Scavini [4], A. Caneschi [2], P. Ghigna [6]

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**Th.N-P16 - Novel type of highly sensitive alternating magnetic field detector based on the magnetoplasmonic crystal**

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O. Magnetic Devices and Novel materials

**Th.O-P02 - Temperature dependent magnetostrains in Mn and Ga-doped Fe-Pd ferromagnetic shape memory ribbons**

M. Sofronie [1], F. Tolea [1], A. Crisan [1], M. Enculescu [1], M. Valeanu [1]
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**Th.O-P03 - Liquid pressure wireless stress sensor based on magnetostrictive microwires for applications in cardiovascular localized diagnostic**

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**Th.O-P05 - Electrical control of magnetostatic and magnetoelastic waves in ferrite-piezoelectric structure**

Y. Khivintsev [1,2], Y. Filimonov [1,2], S. Vysotsky [1,2]
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**Th.O-P06 - Preparation and characterization of porous magnetoelastic composites for magnetic field controlled flow applications**

M. Krautz [1], D. Werner [1], M. Schrödner [2], J. Popp [2], A. Waske [1], J. Eckert [1]
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**Th.O-P07 - Oscillation of standing spin wave in nanostructured ring resonator with spin transfer torque**

B. Peng [1], X. Ya [2], K. imamura [3], T. Tanaka [4], K. Matsuyama [5]
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**Th.O-P08 - Enhancement of the magnetic field sensor sensitivity through tailoring of the magnetic disk profile**

P. Vetoshko [1,4], M. Kozhaev [1,3], N. Gusev [1,3], A. Zvezdin [1,3], I. Syvorotka [5], I. Syvorotka [5], V. Belotelov [1,2]
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**Th.O-P09 - Magnetic properties and domain structure in stress-annealed METGLAS 2714AZ**

P. Sarkar [1], K. Zaveta [2], K. Jurek [2], J. Vcelak [1], P. Ripka [1],
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**Th.O-P10 - GMI sensor for component integrity evaluation**

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**Th.O-P11 - Composite FexOy/TiO2 powders - microstructure and magnetic properties**

O. Zivotsky [1], J. Seidlerova [2], I. Safarik [3], J. Lunacek [1], M. Safarikova [3], K. Mamulova Kutlakova [2]
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**Th.O-P13 - Improved Microtransformer design utilizing Fe-Co magnetic core**

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**Th.O-P14 - Anomalous thermal expansion in (Pr,Ca)$MnO_3$ due to orbital ordering**

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**Th.O-P17 - Electromagnetic properties of Fe granular composite materials**

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**Th.O-P18 - Fabrication of magnetic tunnel junctions with $Co_2Fe_{0.4}Mn_{0.6}Si$ heusler alloy for magnetic field sensor applications**

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**Th.O-P19 - Magneto-optical and magnetic properties of doped alumino-phosphate glasses**

C. Iordanescu [2], M. Sofronie [1], A. Catalin Galca [1], F. Tolea [1], V. Kuncser [1], M. Valeanu [1], M. Elisa [2], I.D. Feraru [2], B.A. Sava [3], L. Boroica [3]
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**Th.O-P20 - Magnetic properties of the reactive sorbents based on the $CeO_2$/$Fe_2O_3$ composite powders**

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**Th.O-P21 - Crystal structure and magnetic properties of the new $R_3Pd_5$ compounds (R = rare earth)**

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**Th.O-P22 - Controlling of demagnetizing field distribution on thin-film magnetoimpedance element for miniaturization and improvement of sensitivity**

H. Kikuchi [1], S. Oe [1], H. Uetake [2], S. Yabukami [2], T. Nakai [3], S. Hashi [4], K. Ishiyama [4]
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**Th.O-P23 - Optimizing the sensing performance of fluxgate magnetometer using amorphous metallic wire cores**

U. Topal [1], C. Birlikseven [1], H. Sözeri [1], H. Can [1], S. Tanrýseven [1], P. Svec Jr. [2], P. Svec Sr. [2], J. Bydzovsky [3]
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**Th.O-P24 - Microwave detectors based on giant and tunneling magnetoresistive devices**

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**Th.O-P26 - Low temperature sintering of Sc-substituted M-type ferrite multilayers for microwave applications**

J. Töpfer [1], S. Bierlich [1], F. Gellersen [2], A. Jacob [2], R. Valencuela [3]
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**Th.O-P27 - Effect of planar microantenna geometry on microwave properties of integral YIG-antenna structures**

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**Th.O-P28 - Towards integrated magnetoresistance sensors for electrical read-out in perpendicular nanomagnetic logic systems**

I. Eichwald [1], S. Breitkreutz-v. Gamm [1], G. Ziemys [1], M. Becherer [1], D. Schmitt-Landsiedel [1],
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**Th.O-P29 - Optimum laser exposure for setting exchange bias in spin valve sensors**

M. Almeida [1], O. Ueberschõr [1], M. Müller [2], R. Ecke [1], H. Exner [2], S. Schulz [1],
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**Th.O-P30 - Phase stability and magnetic properties of $D0_{22\text{-type}}$ $Mn_3Ga_xGe_{1-x}$**

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**Th.O-P31 - Excitation of a uniform rotational magnetization mode in easy-plane iron-garnet films for flux-gate sensors**

P.M. Vetoshko [1], D.V. Dodonov [1, 2], M.A. Kozhaev [1,3], I.I Syvorotka [4], I.M. Syvorotka [4], A.K. Zvezdin [1,2,3], V.I. Belotelov [1,5],

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**Th.O-P32 - Magnetoimpedance and field sensitivity in arrangement of CoFeSiB amorphous microwires**

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**Th.O-P33 - Paramagnetic anisotropy of amorphous silica measured by ESR and by field-induced rotational oscillation in microgravity**

C. Uyeda [1], M. Yokoi [1], K. Hisayoshi [1]

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**Th.O-P34 - Identification of weak magnetic & ferro/ferri-magnetic particles included in grain ensemble using magnetic volume force**

C. Uyeda [1], K. Hisayoshi [1], K. Kuwada [1], R. Ynagihara [1],

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**Th.O-P36 - Temperature robustness of a fluxgate current sensor with electroplated Fe-Ni-Co cores**

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**Th.O-P37 - Influence of the non-magnetic material on the magnetization dynamics and spin pumping in NiFe and CoFeB multilayer systems**

A. Ruiz Calaforra [1], T. Braecher [1], V. Lauer [1], P. Pirro [1], B. Heinz [1], M. Geilen [1], A.V. Chumak [1], A. Conca [1], B. Leven [1], B. Hillebrands [1]

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**Th.O-P38 - Optimal design for performance improvement of permanent magnet assisted synchronous reluctance motor by enhancing saliency ratio**

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**Th.O-P39 - A Study on 3D design and characteristic of outer-rotor type brush-less dc motor considering upper end cover of housing**

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**Th.O-P40 - Spin lifetime in nano-particles**

J. Rousseau [1,2], R. Morel [1,2], A. Brenac [1,2], I. Berbezier [3], L. Favre [3], L. Vila [1,2], C. Beigné [1,2], A. Marty [1,2], L. Notin [1,2]
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**Th.O-P41 - Biosensing with magnetophotonic plasmonic heterostructures**

D. Ignatyeva [1,2], S. Sekatskii [3], M. Kozhaev [2,4], M. Nur-e-Alam [5], M. Vasiliev [5], A. Fraerman [6], K. Alameh [5], V. Belotelov [1,2]
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**Th.O-P42 - Transfer torque characteristic analysis of dual-stage magnetic gear with rare-earth magnets and non rare-earth magnets**

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**Th.O-P43 - Design of IPMSM interior permanent magnet synchronous motor for minimizing axial force by adapting novel skew method**

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**Th.O-P44 - High sensitivity disk shaped planar Hall effect sensor for capture and detection of superparamagnetic nanoparticles**

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**Th.O-P45 - Investigation of the variation in magnetic nature of Ba - Fe magnetoplumbite with Li - Ti substitution**

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**Th.O-P46 - Multicore off-diagonal magnetoimpedance sensors utilising amorphous wires**

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**Th.O-P47 - Magnetization and magnetic losses of powders from metallized particles at microwaves**

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**Th.O-P48 - Magnetic micro-mechanical systems for magnetic field mapping by optical effect**

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**Th.O-P49 - Spin polarized transport in graphene spin valves with amorphous carbon interfacial layers**

J.F. Sierra [1], B. Raes [1], I. Neumann [1], M.V. Costache [1], S.O. Valenzuela [1]
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**Th.O-P50 - Local magnetic resonance spectroscopy with spin electronics based magnetic sensors**

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*1. Service de Physique de l'Etat Condensé, CEA Saclay, UMR CNRS 3680, Gif sur Yvette, France*

**Th.O-P51 - Grain orientation and magnetostrictive properties of Tb-Dy-Fe alloys**

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**Th.O-P52 - Ultra-high frequency tunability in low-current and low-field spin torque oscillators based on perpendicular magnetic tunnel junctions**

T. Le [1], A. Eklund [2], S. Chung [1,3], H. Mazraati [1], A. Nguyen [1,4], M. Yamanouchi [5,6], E. Enobio [6], S. Ikeda [5,6], H. Ohno [5,6], J. Akerman [1,3]

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**Th.O-P53 - Effect of Boron substitution on magnetostrictive properties of $SmFe_2$ and $(Tb,Dy)Fe_2$ intermetallic alloys**

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**Th.O-P54 - AlOx and MgAlOx barrier based magnetic tunnel junction sensing devices for industrial application**

S. Knudde [1,2], J. Valadeiro [1], A. Moskaltsova [1,2], A.V. Silva [1,2], D.C. Leitao [1,2], S. Cardoso [1,2]

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**Th.O-P55 - Effect of the molybdenum content on magnetic characteristics of amorphous magnetic glass coated temperature sensing microwires in biomedical applications**

R. Hudak [1], R. Varga [2], I. Polacek [1], P. Klein [2], R.P. del Real [3], M. Vazquez [3]

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**Th.O-P56 - Study on the DC linear stepper motor to industrial applications**

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**Th.O-P57 - The development of the physical foundations of the actuator based on the magnetically bi-phase partially covered microwire**

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P. Applied magnetism of organic compounds and Biomedical applications

**Th.P-P01 - The role of the coating on the degradation and hematotoxicity of magnetic nanoparticles evaluated in a rat model**

L. Gutiérrez [1], A. Ruiz [1,2], P.R. Caceres [3], D. Santos [3], S.B. Chaves [3], M.L. Fascineli [3], M. García [3], R.B. Azevedo [3], M. Puerto Morales [1]
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**Th.P-P02 - Field and frequency dependence of the SAR/ILP value in magnetic hyperthermia using magnetic multi- and single core particles**

P. Southern [1], L. Bogart [1], Q. Pankhurst [1], F. Ahrentorp [2], A. Sarwe [2], J. Blomgren [2], C. Jonasson [2], F. Westphal [3], C. Grüttner [3], R. Costo [4]
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**Th.P-P03 - Perpendicularly magnetized particles for cancer therapies**

R. Mansell [1], T. Vemulkar [1], D. Petit [1], Y. Cheng [2], J. Murphy [3], M. Lesniak [3], R. Cowburn [1]
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**Th.P-P04 - Encapsulation of VEGF165 in magnetic PLGA nanocapsules for potential local delivery and bioactivity into human brain endothelial cells**

E. Carenza [1], O. Jordan [2], P. Martínez-San Segundo3 [3], R. Jirik [4], Z. Starcuk jr [4], G. Borchard [2], A. Rosell [3], A. Roig [1]
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**Th.P-P05 - A composite element bit design for magnetically encoded microcarriers**

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**Th.P-P06 - Dynamically varying magnetic microstructures as NMR tranducers of physiological conditions.**

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**Th.P-P07 - Influence of core-to-aggregate dipole interactions in the heating capacity of magnetic hyperthermia agents**

C. Blanco-Andujar [1,2], P. Southern [3], L.K. Bogart [3], Q.A. Pankhurst [3], C. Grüttner [4], M. del Puerto Morales [5], D. Ortega [2,6,7]
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**Th.P-P08 - Synergy on magneto-plasmonic nanoprobes: Combined magneto-photonic hyperthermia**

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**Th.P-P09 - Stability and cellular uptake of anionic iron oxide nanoparticles for hyperthermia**

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**Th.P-P10 - NMR as evaluation strategy for cellular uptake of nanoparticles**

T. Orlando [1], A. Paolini [2], F. Pineider [3], E. Clementi [2], F. Pasi [2], Y. Guari [4], J. Larionova [4], L. Sacchi [2], R. Nano [2], M. Corti [1]
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**Th.P-P11 - On the double role of the magnetic anisotropy for magnetic-fluid hyperthermia**

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**Th.P-P12 - Synthesis and characterization of magnetic nanogranular $Fe_3O_4$/ biomimetic hydroxyapatite for potential applications in nanomedicine**

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**Th.P-P13 - Dynamics of $CoFe_2O_4$ single-core nanoparticles in viscoelastic media**

H. Remmer [1], J. Dieckhoff [1], A. Tschöpe [2], E. Roeben [3], A.M. Schmidt [3], F. Ludwig [1]
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**Th.P-P14 - Investigation of PEI-coated magnetic nanoparticles and their potential in nanomagnetic transfection using dynamic magnetic systems**

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**Th.P-P16 - Synthesis and characterization of surfactant coated superamagnetic iron oxide nanoparticles for various biomedical applications**

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**Th.P-P17 - Magnetic nanowires and hyperthermia: the influence of geometry and material on heat production efficiency**

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**Th.P-P18 - The human mononuclear cells vital activity in magnetic field**

N. Perov [1], L. Litvinova [2], V. Rodionova [2], I. Iglesias [2], V. Rodionov [2], V. Shupletsova [2], N. Sokhonevich [2], O. Khaziakhmatova [2], A. Granovsky [1]
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**Th.P-P19 - A Monte Carlo study of the Susceptibility losses in heating of magnetic core/shell nanoparticles for hyperthermia**

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**Th.P-P20 - Maghemite nanocrystal clusters for MRI diagnosis and hyperthermia medical treatment**

A. Lappas [1], K. Brintakis [1, 2], A. Kostopoulou [1], M. Vasilakaki [3], K. Trohidou [3], A. Ranella [1], I. Athanassakis [4], M. Angelakeris [2], A. Lascialfari [5], A. Douvalis [6]
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**Th.P-P21 - Effect of pulsed magnetic field stimulation on circulatory diagnosis of acupuncture meridian system**

H. Sook Lee [1], Y. Shin [1], D. Guwn Hwang [1]
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**Th.P-P22 - Influence of magnetic nanoparticle surface modification on circulation time**

V. Zavisova [1], M. Koneracka [1], M. Muckova [2], N. Tomasovicova [1], J. Kovac [1], M. Kubovcikova [1], I. Antal [1], P. Kopcansky [1]
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**Th.P-P23 - Resonance absorption of microwaves by tissue with ferromagnetic particles**

D. Kalganov [1], L. Butko [1], A. Anzulevich [1], D. Pavlov [1]
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**Th.P-P25 - Magnetic nanoparticle cryogels as hyperthermia cancer therapeutics**

R. Jackson [1], P. Southern [1], J. Sullivan [1], Q. Pankhurst [1]
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**Th.P-P26 - Preparation and in vitro experiments of carboxymethyl chitosan-coated Fe-Ti-Nb-B micro/nanoparticles for self-controlled magnetic hyperthermia**

C. Danceanu [1,2], D.D. Herea [1], K. Palanisamy [1], E. Radu [1], N. Lupu [1], H. Chiriac [1]
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**Th.P-P27 - Study of the optimal thermal dose in the magnetic hyperthermia with low Curie temperature particles**

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**Th.P-P28 - Bendable probes integrating ultrasensitive magnetoresistive sensors for local field detection in neurosciences**

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**Th.P-P29 - Magnetic properties and microstructures of polymer functionalized $Fe_3O_4$ nanoparticles-enhanced surface plasmon resonance (SPR) biosensor**

E. Suharyadi [1], S. Nuzully [1], T. Kato [2], S. Iwata [2], K. Abraha [1]
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**Th.P-P30 - Protein influence on MRI contrast properties of magnetite nanoparticles**

O. Strbak [1], D. Gogola [1], L. Baciak [2], A. Krafcik [1], M. Masarova [1], I. Antal [3], M. Kubovcikova [3], M. Koneracka [3], V. Zavisova [3], P. Kopcansky [3]
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**Th.P-P31 - Magneto-plasmonic nanoparticles as theranostic platforms for magnetic resonance imaging, drug delivery and NIR hyperthermia applications**

I. Urriés [1,2], C. Muñoz [1,2], L. Gómez [1,2], C. Marquina [3,4], V. Sebastián [1,2,4], M. Arruebo [1,2,5], J. Santamaría [1,2,5]
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**Th.P-P32 - Ferrofluids based on ZnxMn(1-x)Fe2O4@ɣ-Fe2O3 nanoparticles for heat-exchange applications**

V. Pilati [1], R. Cabreira Gomes [1,2], G. Gomide [1], F.L. de Oliveira Paula [1], R. Aquino [3], F. Augusto Tourinho [4], G. Fabián Goya [5], E. Dubois [2], R. Perzynski [2], J. Depeyrot [1]
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**Th.P-P33 - Biodegradation of PolyChlorinated Biphenyls (PCB118) by SPION coated microbial cells of Pseudomonas mendocina**

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**Th.P-P34 - Interaction of superparamagnetic nanoparticles and quantum dots with pathogenic fungi: internalization and toxicity profile**

N. Rispail [1], L. De Matteis [2], R. Santos [3], A.S. Miguel [3], L. Custardoy [2,4], P.S. Testillano [5], M. del Carmen Risueño [5], A. Pérez de Luque [6], C. Maycock [3,7], P. Fevereiro [3,7,] A. Oliva [3], R. Fernández-Pacheco [2,4], M.R. Ibarra [2,4,8], J.M. de la Fuente [9,10], C. Marquina [8,9], D. Rubiales [1], E. Prats [1]
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**Th.P-P35 - Resonance frequency of alternating magnetic field stimulus on proliferation suppression of rat basophilic leukemia cancer cells**

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**Th.P-P37 - MRI tracking of the magnetite nanoparticles encapsulation in PLA spheres**

M. Koneracka [1], I. Antal [1], M. Kubovcikova [1], V. Zavisova [1], O. Strbak [2], D. Gogola [2], L. Baciak [3], A. Krafcik [2], M. Masarova [2], P. Kopcansky [2]
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**Th.P-P39 - Magnetrodes: Exploring the neuromagnetic field at the cellular level**

L. Caruso [1], V. Trauchessec [1], J. Tréjo Rosillo [1], E. Paul [1], C. Fermon [1], G. Ouanounou [2], A. Mikroulis [2], F. Barbieri [2], T. Bal [2], A. Destexhe [2]
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## Friday, 10 July

A. Topological Insulators and metal-insulators transitions

**FR.A-P01 - Topological insulators in random magnetic fields**

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**FR.A-P02 - Controlling the 2DEG states evolution at a metal/$Bi_2Se_3$ interface**

H.J. Noh [1], J. Cheong [1], E.J. Cho [1], J. Park [2], J.S. Kim [2], I. Kim [3], B.G. Park [3], H.D. Kim [4]
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**FR.A-P03 - Topological surface states in $SrIrO_3$ based interfaces**

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**FR.A-P04 - Metal-insulator transition in $NdNiO_3$ by hydrogen doping**

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**FR.A-P05 - Majorana fermions in the superconducting island**

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**FR.A-P06 - Local magnetoresistance at an interface between a ferromagnetic metal and a three dimensional topological insulator due to the spin-momentum locking**

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**FR.A-P07 - Structure and induced stress of Fe on $Bi_2Se_3$(0001)**

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**FR.A-P08 - Low-energy muSR study on the tetradymite topological insulator $Bi_{1.5}Sb_{0.5}TeSe_2$**

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**FR.A-P09 - Low-energy muSR study on the tetradymite topological insulator $Bi_{1.5}Sb_{0.5}TeSe_2$**

K. Matsui [1], T. Goto [1], T. Adachi [1], T. Ohtsuki [1], H. Tu [2], Y. Tanabe [2], I. Watanabe [3], Z. Salman [4], A. Suter [4], T. Prokscha [4]
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**FR.A-P11 - Rotation effect of $RuO_6$ octahedron at the $Sr_2RuO_4$ surface on thermal transport properties**

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**FR.A-P13 - Topological phase transitions in extended Hubbard-type models at half filling**

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**FR.A-P14 - Tunable two-dimensional Dirac fermion gases at the surface of topological insulators**

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**FR.A-P15 - Electrical conductivity and weak ferromagnetism at the magnetic domain walls of the all-in/all-out order in $Cd_2Os_2O_7$**

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**FR.A-P16 - The changes in surface states of La, Ce, Eu doped $SmB_6$**

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**FR.A-P21 - Electronic structure and phonon modes of $SmB_6$**

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**FR.A-P22 - DFT+DMFT study of composition and temperature dependent electronic structure of $NiS_{2-x}Se_x$**

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**FR.A-P23 - Elastic softening in the tetrahedrite $Cu_{12}Sb_4S_{13}$**

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**FR.A-P24 - Phase diagram of graphite in the ultra-quantum limit**

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**FR.A-P25 - Mirror-symmetric magneto optical kerr rotation of [(GeTe)2(Sb2Te3)1]n Superlattices**

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**FR.A-P26 - Strain mediated voltage control of metal-insulator transition in $VO_2$ / PMN-PT heterostructures**

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**FR.A-P27 - Classification of symmetry protected topological phases by the Chern-Simons approach**

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**FR.A-P28 - Shubnikov-de Haas oscillations in the antiferromagnetic superconductor HoPdBi**

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**FR.A-P29 - Orbital polarization, spin-spin correlations and metal-insulator transitions in the $Ca_{2-x}SrxRuO_4$ system**

Y. Utsumi [1], D. Kasinathan [1], S. Agrestini [1], Z. Hu [1], K.T. Ko [1], M. Haverkort [1], K.D. Tsuei [2], Y.H. Wu [2], Y.F. Liao [2], A.C. Komarek [1]
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**FR.A-P30 - Complex magnetic ordering process at the metal insulator transition in half-frustrated $Ca_2Os_2O_7$**

M. Rahn [1], R. Johnson [1], J. Vale [2], C. Donnerer [2], P. Manuel [3], D. Khalyavin [3], G. Nisbet [4], Y. Guo [1], Y. Shi [5], D. McMorrow [2]
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**FR.A-P31 - Doping-induced single-particle states due to magnetic excitation of a Mott insulator**

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**FR.A-P32 - Magnon waveguides from topological magnon insulators**

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**FR.A-P33 - Magnon hall effect of topological magnon insulators**

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**FR.A-P34 - Absence of magnetic fluctuation in the topological Kondo insulator SmB6 revealed by polarized low energy muons**

P. Kumar Biswas [1], Z. Salman [1], G. Balakrishnan [2], M. Ciomaga Hatnean [2], M.R. Lees [2], D. McK. Paul [2], E. Morenzoni [1], A. Amato [1]
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**FR.A-P35 - Preparation and characterization of the topologically non-trivial half Heusler compound YPtBi**

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**FR.A-P37 - Nd-ion substitution effect on f-electron multipole order of $PrRu_4P_{12}$**

K. Iwasa [1], A. Yonemoto [1], S. Takagi [1], S. Itoh [2], T. Yokoo [2], S. Ibuka [2], C. Sekine [3], H. Sugawara [4]
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**FR.A-P40 - Magnetic properties of gadolinium substituted $Bi_2Te_3$ single crystals**

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**FR.A-P41 - Antiferromagnetic order competing with topological state in $CexBi_{2-x}Te_3$**

H.S. Lee [1], K. Lee [1], S.W. Kim [1], J. Kim [1], M.H. Jung [1], A. Jelen [2], S. Vrtnik [2], Z. Jaglicic [2], J. Dolinsek [2]
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**FR.A-P42 - High pressure X-ray Diffraction studies on pyrochlore iridates near Metal-insulation transition**

Z. Feng [1], C. Donnerer [1,2], J. Vale [1,2,3], D. Prabhakaran [4], A. Boothroyd [4], D. Mcmorrow [1,2]
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**FR.A-P43 - Pressure-induced semimetal-to-semiconductor transition in bismuth**

P. Brown [1], K. Semeniuk [1], A. Vasiljkovic [1], F. Malte Grosche [1]
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**FR.A-P44 - Topological phases of periodically-driven system on a hexagonal lattice**

M. Maksymenko [1], I. Cosma Fulga [1]
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**FR.A-P46 - Weak antilocalization and magnetic field driven metal insulator transition in $Bi_2Te_{2.1}Se_{0.9}$ single crystals**

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**FR.A-P47 - Laser-induced phase transitions of topological Kondo insulators**

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**FR.A-P49 - Spin susceptibility of mercury telluride - cadmium telluride quantum wells**

M. Governale [1], T. Kernreiter [1], E. Hankiewicz [2], U. Zülicke [1]
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**FR.A-P50 - Thermopower and Nernst effect of the Kondo insulator $CeRu_4Sn_6$**

V. Martelli [1], J. Hõnel [1], J. Larrea J. [1,2], H. Winkler [1], A. Prokofiev [1], S. Paschen [1]
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**FR.A-P51 - Spin torque diode quantitative measurements of the damping in localised magnetic modes**

S. Lequeux [1], J. Sampaio [1], R. Matsumoto [1,3], P. Bortolotti [1], T. Devolder [2], A. Fukushima [3], H. Kubota [3], K. Yakushiji [3], S. Yuasa [3], V. Cros [1]
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**FR.A-P52 - anomalous quasiparticles on the domain wall between topological insulators and spin ice compounds**

I. Kanazawa [1], T. Sasaki [1]
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**FR.A-P54 - Metal-Insulator transition in $LaNiO_{3-d}$ thin and ultrathin films: how to disentangle desorder and doping effects**

A. Senegas [1], J. Scola [1], B. Berini [1], G. Agnus [2], C. Vilar [1], V. Pillard [2], P. Lecoeur [2], Y. Dumont [1]
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**FR.A-P56 - Fermi surface on the border of Mott transition in $NiS_2$**

H. Chang [1], S. Friedemann [2], M. Gamza [3], W. Coniglio [4], D. Graf [4], S. Tozer [4], M. Grosche [1]
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**FR.A-P57 - Magnetic ion doping on the surface of $Bi_2Se_3$ topological insulators**

R. Chatterjee [1], Bushra Irfan [1]
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**FR.A-P58 - Magnetotransport and magnetic properties of single crystals of $BaNiS_2$: a two-dimensional semimetal with highly mobile carriers**

Y. Klein [1], D. Santos-Cottin [1], M. Verseils [1], A. Gauzzi [1]
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**Fr.A-P59 - Quantum oscillations study of the Fermi surface of $BaNiS_2$ with enhanced spin-orbit interactions**

Y. Klein [1], A. Audouard [2], D. Santos-Cottin [1], G. Feve [3], V. Frelon [3], D. Vignolles [2], B. Placais [3], M. Verseils [1], A. Gauzzi [1]
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**FR.A-P60 - Magnetic and structural stability of topological-insulator/ferromagnet hybrid structures during thermal annealing procedures**

M. Valiska [1], M. Vondráeek [2], H. Steiner [3], G. Springholz [3], R. Tarasenko [1], V. Sechovsky [1], J. Honolka [2]
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**Fr.A-P64 - Semi-epitaxial $SmB_6$ thin films prepared by the molecular beam epitaxy**

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**FR.B-P01 - The influence of Coulomb correlations on the tunneling transport through multi-electrons states in strongly coupled quantum dots**
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**FR.B-P02 - New state of matter**
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**FR.B-P03 - Orbital-selective behavior and suppression of double exchange in dimerized systems**
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**FR.B-P04 - Strong coupling theory for the hubbard model**
A. Sherman [1]
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**FR.B-P05 - First-principles theory of momentum-dependent local ansatz for correlated electrons system**
S. Chandra [1], Y. Kakehashi [1]
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**FR.B-P06 - Thermodynamic properties of solid oxide fuel cell (SOFC) cathode material- $Nd_{1-x}Sr_xCoO_{3-d}$**
R. Thakur [1], R.K. Thakur [1], N.K. Gaur [1]
*1. Barkatullah University, Bhopal*

**FR.B-P07 - Metal-Insulator Transition in 1T-$TaS_2$:: A real-space dynamical mean-field study**
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**FR.B-P08 - NMR relaxation in the topological kondo insulator SmB_6**
P. Schlottmann [1]
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**FR.B-P09 - Magnetic hyperfine field at a Cd impurity diluted in $RCo_2$ at finite temperatures**

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**FR.B-P10 - Magnetism in the three-dimensional layered Lieb lattice: Higher transition temperatures via flat-band and Van Hove singularities**

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**FR.B-P11 - Steady state dynamics in a model system of strongly correlated electrons: effective temperatures near local quantum criticality**

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**FR.B-P12 - Pinball liquid phase from Hund's coupling in frustrated triangular geometry**

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**FR.B-P13 - A phenomenological approach to the metamagnetism in heavy fermion compounds**

K. Matsumoto [1], S. Kosaka [1], S. Murayama [1]
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**FR.B-P14 - Novel spin and orbital orderings in the layered perovskite $Sr_2CrO_4$**

T. Ishikawa [1], T. Toriyama [1], T. Konishi [1], H. Sakurai [2], Y. Ohta [1]
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**FR.B-P15 - Quantum disordered phase in the frustrated honeycomb Hubbard model**

H. Nishida [1], K. Misumi [1], T. Kaneko [1], Y. Ohta [1]
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**FR.B-P16 - Charge-density wave and exciton condensation induced by Coulomb interaction and electron-phonon interaction in 1T-TiSe_2**

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**FR.B-P17 - Anomalous influence of an external magnetic field on the electron energy spectrum of ferromagnetic semiconductors with strong p,d-hybridization**

A. Povzner [1], A. Volkov [1], K. Shumikhina [1]
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**FR.B-P18 - Quantum disordered phase in the triangular-lattice Hubbard model with next-nearest-neighbor hopping**

K. Misumi [1], T. Kaneko [1], Y. Ohta [1]
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**FR.B-P19 - The Hubbard model beyond the two-pole approximation: a composite operator method study**

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**FR.B-P21 - The influence of the interband Coulomb interaction and the \$f\$-electron hopping on excitonic correlations in the extended Falicov Kimball model**

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**FR.B-P22 - Microscopic model of full magnetic phase-diagram of itinerant ferromagnet $UGe_2$**

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**FR.B-P23 - Theoretical study of charge-spin-orbital fluctuations in mixed valence spinels: $AlV_2O_4$ and $LiV_2O_4$**

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**FR.B-P24 - Dynamical characteristics of the Mott transition: examination of doublon dynamics in a triangular-lattice Hubbard model**

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**FR.B-P26 - Theoretical study of non-fermi liquid behavior in Pr 1-2-20 compounds**

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**FR.B-P27 - Theory of dilution effect in orbital kondo systems**

T. Mutou [1], Y. Miyamoto [1], H. Kusunose [2]
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*2. Ehime University, Ehime, Japan*

**FR.B-P28 - Excitonic phases in the two-band Hubbard model with electron-phonon coupling**

T. Kaneko [1], Y. Ohta [1]
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**FR.B-P29 - Nonequilibrium dynamics of a periodically-driven impurity spin coupled to the bath of ultracold fermions by Kondo coupling**

K. Iwahori [1], N. Kawakami [1]
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**FR.B-P30 - Asymmetric thermal lineshape broadening in the dimerised antiferromagnet $BaCu_2V_2O_8$**

E. Klyushina [1,2], B. Lake [1,2], N. Islam [1], E. Wheeler [3], J. Park [4], B. Klemke [1]
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**FR.B-P32 - Metal-insulator transition in the two-dimensional Hubbard model studied by the dual-fermion method**

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**FR.B-P33 - Phase diagrams and phase transformations in S=1 spin- and pseudospin systems**

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C. New Developments

**FR.C-P01 - Imaging of condensed quantum states in the quantum hall effect regime**

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**FR.C-P05 - Electronic structures and the spin-splittings in ullmannite-type structure compounds**

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**FR.C-P07 - Correlation-induced structural transition in one-dimensional molecular hydrogen crystal**

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**FR.C-P08 - Chemical pressure effect in $SmNiC_2$**

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D. Highly frustrated magnetism

**FR.D-P05 - Magnetic properties of the Ruddlesden-Popper phases $Sr_{3-x}Y_{x}$-$Fe_{1.25}Ni_{0.75}O_{7-\delta}$**

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**FR.D-P07 - Hidden magnetic order in P2-$Na_{0.5}VO_2$ found by muon-spin spectroscopy**

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**FR.D-P08 - Magnetic ground state of a two-dimensional triangular compound, $CrSe_2$, studied with muon-spin spectroscopy**

J. Sugiyama [1], H. Nozaki [1], I. Umegaki [1], K. Miwa [1], S. Kobayashi [2], C. Michioka [2], H. Ueda [2], K. Yoshimura [2], J. Brewer [3,4]
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**FR.D-P09 - Bipartite entanglement and quantum correlations of exact ground states of a spin-1/2 Ising-Heisenberg model on the Shastry-Sutherland lattice**

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**FR.D-P11 - Unconventional spin dynamics in the spin-1/2 triangular-lattice antiferromagnet $Cs_2CuBr_4$**

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**FR.D-P12 - Amorphous ferromagnetism and re-entrant magnetic glassiness in $Sm_2Mo_2O_7$**

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**FR.D-P13 - High Frequency ESR Study of S=1/2 kagome lattice magnet [Cu3(CO3)2(bpe)3]2ClO4**

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**FR.D-P14 - New spin glass material, $KV_{14}Ge_2O_{27}$**

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**FR.D-P15 - Single-crystal growth and magnetic properties of new frustrated magnet, $Rb_2Mn_3V_2O_{10}$**

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**FR.D-P16 - Exact solutions on the ground states of ferro- and antiferromagnetic ising models in magnetic fields with frustration on a diamond hierarchical lattice**

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**FR.D-P17 - Magnetodielectric coupling behavior of single crystalline form of the geometrically frustrated spin-chain compound, $Ca_3Co_2O_6$**

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**FR.D-P18 - Magnetization process of pyrochlore-slub SrCr_{9p}Ga_{12-9p}O_{19} in ultra-high magnetic fields of up to 150 T**

D. Nakamura [1], S. Lee [2], J. Yang [2], H. Ueda [3], K. Penc [4], S. Takeyama [1]
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**FR.D-P19 - Ultrasound velocity measurements in orbital-degenerate frustrated spinel $CoV_2O_4$**

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**FR.D-P21 - Exploring new magnetic phases in artificial spin ices with perpendicular spin moments**

I.A. Chioar [1,2], N. Rougemaille [1,2], A. Grimm [1,2], O. Fruchart [1,2], E. Wagner [1,2], M. Hehn [3], D. Lacour [3], F. Montaigne [3], B. Canals [1,2]
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**FR.D-P22 - Spin glass field theory with replica Fourier transforms**

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**FR.D-P23 - Nematic phases in the bilinear biquadratic Heisenberg model on the honeycomb lattice.**

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**FR.D-P24 - Magnetic field dependence of magnetoelastic interactions in $Tb_2Ti_2O_7$**

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**FR.D-P25 - Unstable magnetic properties of $Pd_{99}Fe_{01}$ nanofilms.**

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**FR.D-P26 - Low-energy dynamics of spin-1/2 square J1-J2 heisenberg antiferromagnet**

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**FR.D-P27 - Novel magnetic phase transition and spin-lattice effects in the frustrated magnet $CdCr_2O_4$**

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**FR.D-P28 - Order by disorder or energetic selection of the ground state in the XY pyrochlore antiferromagnet $Er_2Ti_2O_7$ a neutron scattering study**

S. Petit [1], J. Robert [1], S. Guitteny [1], I. Mirebeau [1], C. Decorse [2], J. Ollivier [3], H. Mutka [3], M. Gingras [4]
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**FR.D-P29 - "Half-moon" excitations in the magneto-elastic spin liquid $Tb_2Ti_2O_7$**

S. Petit [1], S. Guitteny [1], J. Robert [1], I. Mirebeau [1], J. Ollivier [2], H. Mutka [2], C. Decorse [3]
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**FR.D-P30 - Spin-1/2 Heisenberg ferromagnet on the pyrochlore lattice**

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**FR.D-P32 - Magnetic field induced phase transition in $Cs_2CuBr_4$**

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**FR.D-P34 - Structural modulation driven spin canting in re-entrant glassy magnetic phase of $Lu_2MnNiO_6$**

K. Manna [1], A.K. Bera [3,4], M. Jain [1], S. Elizabeth [1], S.M. Yusuf [3], P.S. Anil Kumar [1]
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**FR.D-P35 - High-field raman spectroscopy measurement of the geometrically frustrated chromium spinel oxide $CdCr_2O_4$**

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**FR.D-P36 - Critical properties of a triangular lattice Ising AF/FM bilayer**

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**FR.D-P37 - Single crystal growth of tunable Cu-based quantum spin systems**

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**FR.D-P38 - Spin -glass magnetism in $RFeTi_2O_7$ (R=Lu and Tb) compounds**

T. Drokina [1], G. Petrakovskii [1], M. Molokeev [1], D.i Velikanov [1], A. Arauzo [2], J. Bartolomé [2]
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**FR.D-P39 - Tricritical behavior in the Ising honeycomb lattice with competing interactions**

A. Bobak [1], T. Lucivjansky [1], M. Zukovic [1], M. Borovsky [1], T. Balcerzak [1]
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**FR.D-P40 - Thermodynamic properties in the Kitaev spin liquids**

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**FR.D-P41 - Dimer-dimer correlations and magnetothermodynamics of S=1/2 spherical kagome clusters in W$_{72}$V$_{30}$ and Mo$_{72}$V$_{30}$**

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**FR.D-P44 - Monte Carlo study of heisenberg antiferromagnets on breathing pyrochlore lattices**

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**FR.D-P45 - Ice-rule violation and magnetic monopoles hopping in artificial spin ice**

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**FR.D-P46 - Magnetic properties of the novel frustrated lattice magnet Cu3(OH)5(NO3)·2H2O (likasite)**

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**FR.D-P49 - Critical phenomena in two-dimensional frustrated Heisenberg models**

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**FR.D-P50 - Magnetic and thermal properties of an s=1/2 triangular lattice antiferromagnet Ba_$_2$CoTeO_$_6$**

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**FR.D-P51 - Magnetic ordering of triangular lattice antiferromagnets $Ba_3NiTa_2O9$ and $Ba_2NiTeO_6$**

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**FR.D-P52 - Spin liquid behavior in the depleted triangular antiferromagnets $Ba_3Ru_{1-x}Ir_xTi_2O_9$**

S. Do [1], W. Lee [1], S. Lee [1], Y. Choi [1], K. Choi [1], S. Yoon [2], B. Suh [2], Z. Jang [3], M. Lee [4], E. Choi [4]
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**FR.D-P53 - Substitution effect on S=1/2 frustrated magnetic cluster system $Li_2AMo_3O_8$ (A=In, Sc)**

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**FR.D-P55 - Magnetic characterization of single crystalline barlowite - a structurally perfect spin-1/2 kagome system**

M. Lang [1], E. Gati [1], N. Hieu Hoang [1], B. Wolf [1], H. Jeschke [2], F. Salvat-Pujol [2], R. Valenti [2], J.A. Schlueter [3]
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**FR.D-P56 - Single-crystal high-temperature pyrochlore antiferromagnetic $NaCaCo_2F_7$: An NMR investigation**

R. Sarkar [1], J. Krizan [2], F. Brückner [1], R.J. Cava [2], H.H. Klauss [1]
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**FR.D-P58 - Magnetic properties in a frustrated spin ladder**

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**FR.D-P59 - Atomic layer deposition and characterization of triangular lattice antiferromagnetic oxide $CuCrO_2$**

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**FR.D-P60 - Specific heat of triangular spin tubes in magnetic fields**

H. Manaka [1], M. Hagihala [2], S. Hayashida [2], M. Soda [2], T. Masuda [2], Y. Miura [3]
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**FR.D-P61 - Low temperature spin-glass behavior in nonmagnetic atom disorder compound $Pr_2CuIn_3$**

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**FR.D-P62 - Frustrations in a mixed spin-1/2 and spin-1 Ising model with multispin exchange interactions and single-ion anisotropy on a bipartite honeycomb lattice**

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**FR.D-P63 - Exact results of a mixed spin-1/2 and spin-3/2 Ising model with multispin exchange interactions and single-ion anisotropy on a decorated triangular lattice**

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**FR.D-P66 - Neutron scattering study of the quantum spin ice candidate $Pr_2Zr_2O_7$**

S. Guitteny [1], J. Robert [3], S. Petit [1], E. Lhotel [3], A. Goukassov [1], I. Mirebeau [1], P. Bonville [2], C. Decorse [4], M. Ciomaga Hatnean [5], G. Balakrishnan [5]
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**FR.D-P67 - Spin dynamics of a frustrated FCC - antiferromagnet**

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**FR.D-P68 - Long-range order of classical dipoles on the kagome lattice**

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**FR.D-P69 - Re-investigation of low-temperature magnetic phase transitions of the geometrically frustrated isosceles triangular Ising antiferromagnet CoNb2O6**

S. Mitsuda [1], S. Hosaka [1], H. Tamatsukuri [1], H. Koorikawa [1], S. Kobayashi [2], T. Nakajima [3], K. Prokes [4], K. Kiefer [4]
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**FR.D-P71 - Field induced phenomena in magnetically frustrated systems $Co_{1-x}M_xAl_2O_4$ (M = Mg, Zn)**

T. Naka [1], K. Sato [2], S. Ishii [3], T. Nakane [1], N. Terada [1], M. Taguchi [4], M. Nakayama [1], Y. Matsushita [1], A. Matsushita [1], S. Takami [2]
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**FR.D-P72 - Exotic Field Induced Quantum Phase Transition of the Kagome Lattice Antiferromagnet**

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**FR.D-P73 - Hidden Order in Spin-Liquid $Gd_3Ga_5O_{12}$**

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**FR.D-P74 - Study of the frustrated Ising antiferromagnet on the stacked triangular lattice in the field**

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**FR.D-P76 - Magnetothermal properties of the local xy-antiferromagnet $Er_2Ti_2O_7$**

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**FR.D-P77 - Phase diagram within Kitaev - Heisenberg model**

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**FR.D-P79 - Spiral-spin-liquid state in spinel $MnSc_2S_4$**

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**FR.D-P80 - Disordered quantum kagome lattice**

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**FR.D-P82 - Investigation into the magnetic properties of pyrochlore-type rare-earth hafnates**

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**FR.D-P83 - Magnetic order in pyrochlore hafnate $Nd_2Hf_2O_7$**

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**FR.D-P84 - Determination of critical exponents in a metallic glass: FeCrCuNbSiB**

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**Fr.D-P87 - Polarised neutron scattering studies of magnetic correlations in pyrochlore iridates**

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**FR.E-P01 - Classical spin relaxation via spin-bath interaction: longitudinal vs. transverse spin-bath-coupling**

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**FR.E-P02 - Magnetic properties of the SPIN-1 J1-J3 heisenberg model on a triangular lattice**

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**FR.E-P03 - Effect of doping on magnetic properties of magnetocaloric series (Fe1-xMnx)2P1-ySiy**

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**FR.E-P04 - Breaking symmetry in one dimensional random chain**

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**FR.E-P05 - dynamical properties of honeycomb lattice iridate $Na_2IrO_3$**

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**FR.E-P06 - Hybrid molecular and spin dynamics simulations of gel-based Co nanoparticle dispersions**

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**FR.E-P07 - Magnetic simulation of nano-granular thin films**

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**FR.E-P08 - Frustrated spatially anisotropic spin-1/2 Heisenberg antiferromagnet on a square lattice**

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**FR.E-P09 - Spontaneous magnetizationá and specific heat of a coupled spin-electron model on doubly decorated planar lattices**

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*3. Instituto de Fisica, Universidade Federal de Alagoas, Maceió, Brazil*

**FR.E-P10 - Short-range order above the Curie temperature in the dynamic spin-fluctuation theory**

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**FR.E-P11 - Magnetic phase transition in the spin-fluctuation theory**

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**FR.E-P12 - Generalized flavor-wave expansion for softcore bose-hubbard systems**

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**FR.E-P14 - Realization of the Green's function approach for calculation of inter-atomic exchange interactions in real compounds within full-potential and pseudopotential methods based on the plane-wave basis**

Z. Pchelkina [1,2], D. Korotin [1], S. Streltsov [1,2], V. Anisimov [1]
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**FR.E-P15 - Spontaneous symmetry breaking in variational wave functions: When is it possible?**

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*2. CNR-IOM-Democritos National Simulation Centre and International School for Advanced Studies, Trieste, Italy*

**FR.E-P16 - Functional integral calculation on the temperature depndence of the magnetic hyperfine field at a Cd impurity diluted in RZn (R = Gd, Tb, and Dy)**

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**FR.E-P17 - Hysteresis behavior of magnetic nanotubes with radial anisotropy component**

V.A. Hurtado Marín [1], S. Morales Rojas [1], J.D. Agudelo Giraldo [1,2], E. Restrepo Parra [1]
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**FR.E-P18 - Orbital magnetism in multi-band systems**

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**FR.E-P20 - First principles investigation of magnetic properties of Fe-Ni-Mn-Al heusler alloys**

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**FR.E-P21 - Low temperature properites of chiral magnets with defects**

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**FR.E-P23 - Manipulation of magnetic order in antiferromagnets by strong magnetic field**

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**FR.E-P25 - Novel chiral metastable states in the discrete finite-size classical one-dimensional planar spin model with competing exchange interactions**

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*3. Department of Molecular Physics, National Research Nuclear University MEPhI, Moscow, Russia*

**FR.E-P26 - Monte Carlo investigation of magnetic properties of anisotropic transition-metal oxides**

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**FR.E-P27 - Longitudinal Spin fluctuations studies on magnetic properties of transition medal random-alloys at finite temperatures**

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**FR.E-P28 - Magnetic moment properties of an arbitrary quantum ring contour in the presence of a magnetic field**

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**FR.E-P29 - Spin glass state (SGS) and other seven fundamental magnetic structures with their symmetry groups in terms of the fibre bundle approach: Application to explain experiments on the temperature dependence of susceptibility in SGS**

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**FR.E-P31 - Emergence of quasi-two-dimensional ordered phase in anisotropically coupled spin ladders**

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**FR.E-P32 - Loop-string algorithm for Monte Carlo simulations of spin-ice systems**

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**FR.E-P34 - An extension of the Neel-Brown model of magnetization reversal**

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**FR.E-P35 - Resonating valence bond physics is not always controlled by the shortest tunneling loops**

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**FR.E-P36 - Meron crystals with spin scalar chiral stripes**

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**FR.E-P39 - Volume dependence of magnetic properties in $Co_2Cr_{1-x}Y_xGa$ (Y = Ti, V, Mn, Fe) alloys by first-principles**

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**FR.E-P40 - Fast computational magnetic materials design via DFT calculations and a novel Monte-Carlo sampling method**

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**FR.E-P41 - Field and temperature dependence of spin fluctuations in $ZrZn_2$**
P. Reiss [1], G. Lonzarich [1], F. Malte Grosche [1]
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**FR.E-P42 - Simulation of established linear and nonlinear hysteretic loops in coil with an iron core**
D. Danailov [1]
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## F. Magnetic semiconductors and Diluted magnets

**FR.F-P02 - Magnetism of GaSb-MnSb granular films controlled by charge carriers tunneling through the cluster-matrix Schottky barrier**
A. Talantsev [1], R. Morgunov [1]
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**FR.F-P03 - Magnetically induced transition from hopping-type to band-type conduction in Mn-doped ZnO**
A. Ruotolo [1], X. Wang [2], S. Qi [1], R. Lortz [3], J. Wang [3]
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**FR.F-P04 - The magnetic phase diagram of Mn-Doped GeTe crystals**
M. Kriener [1], Y. Kaneko [1], X.Z. Yu [1], Y. Tokura [1,2], Y. Taguchi [1]
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**FR.F-P06 - Systematic study of AMR in (Ga,Mn)As**
Z. Kaspar [1], K. Olejnik [1], K. Vyborny [1], V. Novak [1], T. Jungwirth [1]
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**FR.F-P07 - Magnetic properties of the $CeO_2$-Co system**
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**FR.F-P08 - Spin correlations in the lightly doped semiconductor oxide Mn:ZnO**
A. Wildes [1], D. Lanþon [1,2], G. Nilsen [1], H. RØnnow [2], A. Magrez [2]
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**FR.F-P09 - Magnetic band splitting of $Ga_{1-x}Mn_xAs$ estimated by magnetic circular dichroism spectroscopy**
K. Ando [1], H. Tanaka [2], V. Zayets [1], H. Saito [1]
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**FR.F-P10 - Magnetic properties of Mn doped crystalline and amorphous Ge thin film grown on Si(111)**

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**FR.F-P11 - Femtosecond optical excitation of spin resonances in the easy-plane antiferromagnet semiconductor EuTe**

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**FR.F-P12 - The effects of different precursors in the production of target for pulsed laser deposition on the magnetism of cobalt doped ZnO films**

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**FR.F-P13 - Direct observation of Dresselhaus effect in zinc blend structure InSb**

W. Jung [1], J. Hong [2], S. Cho [1], B. Kim [1], M. Leandersson [3], T. Balasubramanian [3], S. Kimura [4], J. Shim [2], C. Kim [1]
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**FR.F-P15 - Effect of Ge layer thickness on formation of $Mn_5Ge_3$ Thin Film on Si (111)**

B. Toydemir [1], A. Can Önel [1], M. Ertaþ [1], L. Çolakerol Arslan [1]
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**FR.F-P16 - Defect-induced magnetism in graphite through neutron irradiation**

Y. Wang [1], P. Pochet [2], C.A. Jenkins [3], E. Arenholz [3], G. Bukalis [4], S. Gemming [1], M. Helm [1], S. Zhou [1]
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**FR.F-P18 - Dilute ferromagnetic InMnP**

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**FR.F-P19 - Influence of manganese ions environment in octahedral sublattice on the properties of triple-substituted manganites**

V. Karpasyuk [1], A. Badelin [1], D. Merkulov [1], S. Estemirova [2], I. Derzhavin [1]
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**FR.F-P20 - Low temperature magnetization and Electron Spin Resonance studies in $SrSn_{1-x}Fe_xO_3$ (x=0.05 to 0.1)**

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**FR.F-P21 - Complex magnetic response of SrSn1-xFexO3-d (x=0, 0.05 and 0.08) nano sticks**

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**FR.F-P22 - Large magnetoresistance in diluted magnetic semiconductors in quasi-two dimensional geometry**

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**FR.F-P24 - Mössbauer and magnetic study of $Ni_xCo_{1-x}Fe_2O_4$ nanoferrites**

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**FR.F-P26 - Magnetic properties of V- and Ta-doped alpha-$Fe_2O_3$ films**

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**FR.F-P28 - Nanoscale tin oxide undoped and doped by 3-d elements: Synthesis and magnetic properties**

D. Nazarov [1], P. Matveeva [1], N. Bobrysheva [1], O. Osmolowskaya [1], V. Smirnov [1], M. Osmolowsky [1]
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**FR.F-P29 - Magnetic anisotropy energy studies in highly Co-doped ZnO by ab initio calculations**

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**FR.F-P30 - Magnetic properties of the MOVPE and implanted GaN:Mn films**

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**FR.F-P31 - Transport properties in the ferromagnetic semiconductor gadolinium nitride**

B. Ruck [1], T. Maity [1], H. Warring [1], E.M. Anton [1], C.M. Lee [1], J. Chan [1], S. Granville [1], F. Natali [1], J. Trodahl [1]
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H.Surface and interface effects

**FR.H-P01 - Magnetoresistive memory with recording by the electric field**

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**FR.H-P02 - Intrinsic magnetoresistance in metal films on ferromagnetic insulators**

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**FR.H-P03 - Interface influence on the properties of $Co_{90}Fe_{10}$ films on soft magnetic underlayers - magnetostrictive and Mössbauer spectrometry studies**

T. Szumiata [1], M. Gzik-Szumiata [1], K. Brzózka [1], B. Górka [1], M. Gawroñski [1], A. Caruana Finkel [2], N. Reeves-McLaren [2], N.A. Morley [2]
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**FR.H-P07 - Interfacial-scattering-induced enhancement of the anomalous Hall effect in uniform Fe nanocluster-assembled films**

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**FR.H-P08 - Thermal stability of an interface-stabilized skyrmion lattice**

S. Krause [1], A. Sonntag [1], J. Hermenau [1], R. Wiesendanger [1]
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**FR.H-P09 - Effect of the ion bombardment on the magnetic and transport properties of space-less manganite/metal pseudo spin valves**

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**FR.H-P10 - Ferromagnetic resonance measurements in sub-nanometer Fe films**

H. Mizuno [1], T. Moriyama [1], M. Kawaguchi [1], M. Nagata [1], K. Tanaka [1], T. Koyama [2], D. Chiba [2], T. Ono [1]
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**FR.H-P11 - Study on spin-orbit interaction in an MgO/Co/Pd trilayer with annealing**

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**FR.H-P12 - Anomalous hall conductivity at uncompensated antiferromagnetic interfaces**

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**FR.H-P13 - Influence of roughness in ultrathin Co/Ni multilayered films with perpendicular magnetic anisotropy: reduction or enhancement?**

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**FR.H-P14 - Probing Co/Pd interfaces by the extraordinary hall effect.**

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**FR.H-P15 - Mechanism and control of antiferromagnetic coupling in Fe/Fe3O4 junctions**

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**FR.H-P16 - Reversed behavior studies of angle-dependent magneto-optical Kerr rotation in magnetic/optical birefringent system**

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**FR.H-P17 - Reduction of the mean magnetic moment of Ni clusters embedded in Ag**

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**FR.H-P18 - First-principles study on the vertical spin texture of anomalous rashba effect in Tl/Si(111) and Tl/Si(110)**

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**FR.H-P20 - Magnetoelastic coupling between NiFe thin film and ferroelastic substrate**

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**FR.H-P21 - Magnetic and electric transport properties of $LaFe_{0.5}Co_{0.5}O_3$ perovskite system: effect of annealing temperature**

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**FR.H-P22 - First-principles studies on the electronic and magnetic properties of (001) surfaces of half-heusler X(X=Li and Na)CaB**

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**FR.H-P24 - Optical characterization of quantum hall effect devices with a cap layer passivated by silicon monolayers**

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**FR.H-P25 - Electronic reconstructions at manganite interfaces driven by chemical and structural symmetry breaking**

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**FR.H-P27 - Investigations on interface magnetism of Fe-containing heusler alloy films through mössbauer spectroscopic measurements**

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**FR.H-P28 - Magnetism of Ru monolayer - first principles calculations -**

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**FR.H-P29 - The influence of interfacial dzyaloshinskii-moriya interaction strength on the magnetic structure of thin films under magnetic field**

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**FR.H-P31 - Magnetic properties of ordered CoO nanostructures on Co/Fe(001)**

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**FR.H-P33 - Magnetic properties of tetra-phenyl-porphyrins adsorbed on metal surfaces**

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**FR.H-P34 - Magnetic coupling of MnTPP(Cl) molecules to magnetic substrates investigated by X-ray photo-emission electron microscopy**

M. Baljozovic [1], J. Girovsky [1], M. Buzzi [2], C. Wõckerlin [3], D. Siewert [4], J. Nowakowski [1], P. M. Oppeneer [5], F. Nolting [2], T. A. Jung [1], N. Ballav [6]
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I. Measuring techniques and instrumentation

**FR.I-P02 - Implementation of broadband magnetic susceptibility meter based on broadband lock-in amplifier techniques**

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**FR.I-P03 - Controllable measurements of magnetic hysteresis and Barkhausen noise**

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**FR.I-P04 - Resonant X-ray magnetic scattering at helium-3 temperatures in high magnetic fields at beamline P09 at PETRA III at DESY**

S. Francoual [1], J. Strempfer [1], J. Warren [2], Y. Liu [3], A. Skaugen [1], S. Poli [2], J. Blume [1], F. Wolff-Fabris [4], P. Canfield [5,6], T. Lograsso [3,5]
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**FR.I-P05 - Measurement of the DC properties of permanent magnets using a Pulsed Field Magnetometer.**

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**FR.I-P06 - A giant magneto-impedance magnetometer for magnetic nondestructive detection of corrosion activity**

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**FR.I-P07 - CAMEA - Continuous angle multiple-energy analysis  a novel neutron spectrometer**

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**FR.I-P08 - Application of electroplated magnetic gratings for high-resolution position sensing**

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**FR.I-P09 - In-situ magnetic studies on LixCoO2 battery cathodes during charging/discharging**

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**FR.I-P11 - A new bench concept for measuring magnetic fields of big closed structures**

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**FR.I-P12 - New improvements in magnetic measurements laboratory of the ALBA synchrotron facility**

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**FR.I-P13 - Magnetic vector potential formulation forstress intensity factorscalculation by eddy currenttesting**

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**FR.I-P14 - Numerical modeling of Barkhausen magnetic noise**

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**FR.I-P15 - Radiation pressure excitation of low temperature atomic force & magnetic force microscope (LT-AFM/MFM) for imaging**

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**FR.I-P16 - 1fm/√Hz Noise Level Low Temperature Atomic Force & Magnetic Force Microscope (LT-AFM/MFM) in 20mK-300K Temperature Range**

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**FR.I-P17 - An ultra-low temperature scanning hall probe microscope (SHPM) for magnetic imaging below 40 mK**

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**FR.I-P18 - Broadband dynamic permeability measurements of a single micronic ferromagnetic flake**

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**FR.I-P19 - Nuclear GISAXS superstructure peaks for characterization of antiferromagnetically ordered nanostripes**

L. Dzemiantsova [1,2], K. Schlage [2], L. Bocklage [1,2], H. Wille [2], D. Erb [2], G. Meier [1,3], R. Roehlsberger [1,2]
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**FR.I-P20 - Investigation of vortex chirality via local hysteresis loops measured by magnetic force microscopy**

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**FR.I-P21 - Transversal mapping of Gd concentration in $UO_2$-$Gd_2O_3$ nuclear fuel pellets**

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**FR.I-P22 - Diffraction-limited optical imaging of ferroelectricity and magnetism**

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**FR.I-P24 - Magnetic classification in wet-mode: proofs of concept, and applications.**

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**FR.I-P26 - Elastic scattering of electron vortex beams through magnetic matter**

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**FR.I-P28 - Quantitative analysis of shadow X-ray magnetic circular dichroism photo-emission electron microscopy**

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**FR.I-P29 - Magnetic moment measurement utilizing single magnetometer and levenberg-marquardt algorithm**

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**FR.I-P30 - In-situ observation for reaction sintering behavior of Bi-Mn alloy in high magnetic fields**

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**FR.I-P31 - Development of a rapid temperature scanning system for pulsed magnetic fields and its applications**

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**FR.I-P32 - Application of thermal expansion and magnetostriction measurements using PPMS**

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**FR.I-P34 - High-frequency ESR measurements of lightly phosphorous doped silicon at low temperatures and their extension to lower temperatures for high B/T ratio**

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**FR.I-P35 - Jiles-atherton's model parameters as functions of field amplitude and temperature for minor hysteresis loop of ni-zn ferrite**

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**FR.I-P36 - Functional properties of newly developed Hall-effect sensors made of graphene**

M. Kachniarz [1], O. Petruk [1], M. Oszwa│dowski [1], J. Salach [2], T. Ciuk [3], W. Strupiñski [3], R. Szewczyk [1], W. Winiarski [1]
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**FR.I-P37 - M-H loop tracer for low frequency measurements: ribbons, powders and wires**

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**FR.I-P38 - Hexapod Hall scanner for high-resolution magnetic imaging**

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**FR.I-P39 - Discrete inverse transformation for eddy-current tomography based on whitney finite edge element method**

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**FR.I-P40 - Comparison of different geometries for membrane based AC calorimeters**

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**FR.I-P41 - Magnetometry based on asymmetric coupled mechanical oscillators**

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**FR.I-P42 - Surface flaws detection in low conductivity titanium alloys using magnetoresistive devices**

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**FR.I-P43 - Local magnetic measurements in multi-layered nanowires observed by electron holography**

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**FR.I-P44 - Highly sensitive very low temperature and high field faraday magnetometer**

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**FR.I-P45 - Sub-nanosecond time-resolved scanning magneto-optical microscope utilizing near-field optics**

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**FR.I-P46 - Oxide wizard as a new tool to probe magnetic properties at the nanoscale.**

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**FR.I-P47 - Probing nano- and micro- magnetism with very small angle neutron scattering instrument KWS-3**

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**FR.I-P48 - Software development for investigating magneto-optical and non-linear effects in nanofluids**

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**FR.I-P49 - Three axis vector magnet for low temperature magnetic imaging**

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*2. Unidad Asociada de Bajas Temperaturas y Altos Campos Magnéticos, UAM-CSIC, Cantoblanco, Madrid, Spain*
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*4. Departamento de Física Aplicada III, Universidad Complutense, Ciudad Universitaria, Madrid, Spain*
*5. Laboratorio de Bajas Temperaturas, Departamento de Física de la Materia Condensada, Instituto de Ciencia de Materiales Nicolás Cabrera, Condensed Matter Physics Center (IFIMAC), Facultad de Ciencias Universidad Autónoma de Madrid, Madrid, Spain*

**FR.I-P50 - Using of ambient magnetic field information in diagnosis of electric motor**

P. Szulim [1], S. Gontarz [1]
*1. Warsaw University of Technology, Institute of Vehicles, Warsaw, Poland*

**FR.I-P51 - Passive identification of magneto-mechanical phenomena in process of fatigue of steel and cast**

S. Gontarz [1], J. Dybala [1], P. Szulim [1]
*1. Warsaw University of Technology, Institute of Vehicles, Warsaw, Poland*

# Exhibition

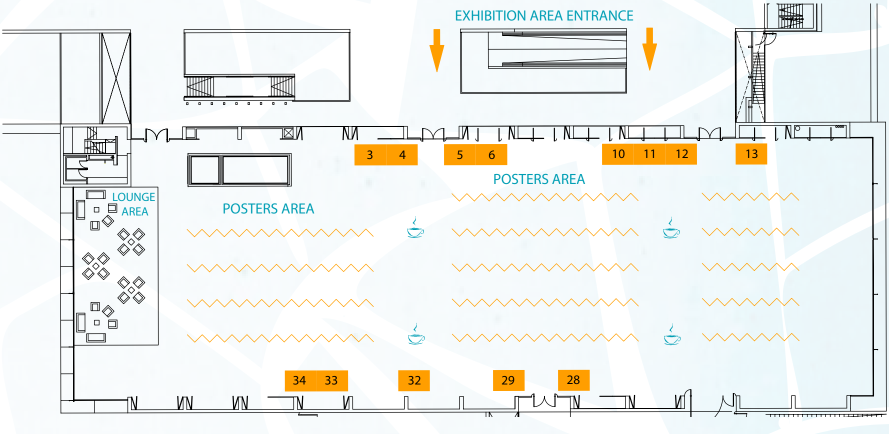
Booths are located in the Exhibition Area (Level 0). Attendees are encouraged to spend time visiting the booths and interacting with the exhibitors.

## Commercial Exhibition Schedule:

July, 6th 09:00h - 19:30h
July, 7th 09:00h - 19:30h
July, 8th 09:00h - 18:00h
July, 9th 09:00h - 18:00h
July, 10th 09:00h - 18:00h

## Exhibition Dismantling

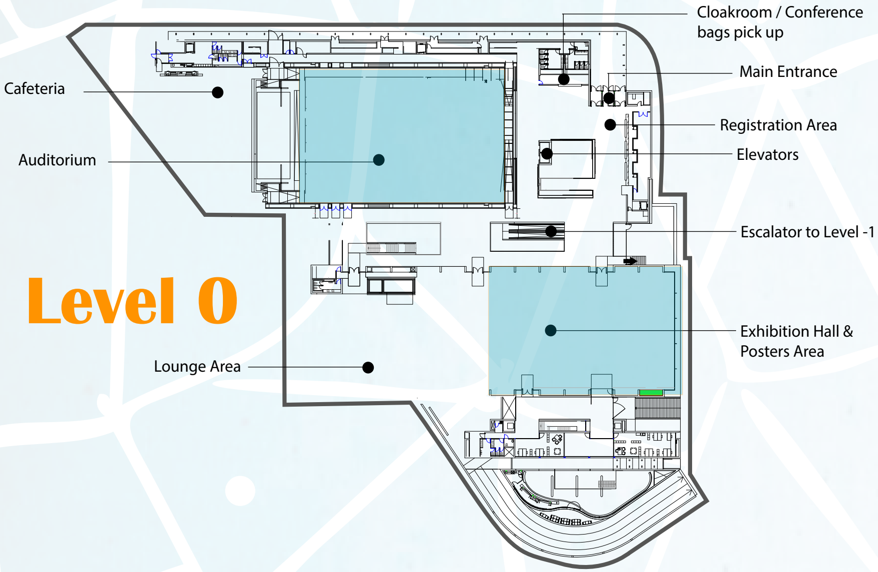
July, 10th 18:30h - 20:00h




Stand 3: Cryogenic
Stand 4: Attocube
Stand 5: Zurich Instruments
Stand 6: Lake Shore
Stand 10 & 11: LOT
Stand 12: Cambridge University Press
Stand 13: IOP publishing

Stand 28: Oxford University Press
Stand 29: Alba
Stand 30: NanoMagnetics
Stand 31: SPECS
Stand 32: NT-MDY
Stand 33: Oxford Instruments
Stand 34: Elsevier

# Venue Layout




# General Information

## Venue

Palau de Congressos de Catalunya
Av. Diagonal 671, Barcelona
**The venue is easily accesible:**
- By subway: Line 3 (Green line) - Zona Universitaria Station
- By bus: Lines 33 & H6

## Registration

The registration area is located in the main hall of the Palau de Congressos de Catalunya.

## Opening hours

July, 5th 13:00h - 18:00h
July, 6th 09:00h - 19:30h
July, 7th 09:00h - 19:30h
July, 8th 09:00h - 13:30h
July, 9th 09:00h - 19:30h
July, 10th 09:00h - 18:00h

Participants ‘registration fee includes:
- Admission to the Scientific Programme
- Admission to the Industry Exhibition
- Coffee breaks from Monday 6th to Friday 10th
- Welcome drink on Sunday 5th
- Conference bag

## Conference Bags pick up

Upon presenting yourself at the registration desk, you will receive your name badge and a voucher for the conference bag. You have to pick up your conference bag at the desk in front of the registration area

## Certificate of attendance

All the certificates will be sent by email after the conference

## Food & Beverages

**Coffee Breaks**
Coffee breaks will be served at the Exhibition Area
Monday: 11:30h to 12:00h and 16:45h to 17:15h
Tuesday: 11:30h to 12:00h and 16:45h to 17:15h
Wednesday: 11:00h to 11:30h
Thursday: 11:00h to 11:30h and 16:45h to 17:15h
Friday: 10:30h to 11:00h and 16:45h to 17:15h

Lunch is not included. A Cafeteria with drinks, snacks and sandwiches available will be open every day from 09.00 to 18.00. The cafeteria is located at level -1.

## Internet Access

There is free wi-fi internet access at the conference venue.
Password: ICM2015BCN

## Tourist information desk

A tourist information desk will be located at the main hall, next to the registration area. The friendly staff can offer helpful advice and information to help you make the most of your trip to Barcelona. You can pick up free brochures and maps.

## Cloakroom

The cloakroom will be located in the main hall so that you could keep your luggage during the conference.

## APP

Download the free ICM2015 app and repare your congress experience. View the most updated scientific programme, search for sessions, create your personal programme, make your own "to do" list and take notes and receive the latest news.

## Posters in my pocket

The ICM2015 propose to the attendants a free app that allows you to download scientific posters directly onto your smart phone. Download Poster in my Pocket, scan or enter a code and within seconds have a crisp clear replica of the poster on your mobile.

## Author's information

**Oral presentations guidelines**
All meeting rooms will be equipped for PowerPoint projection only.
Speakers and presenting authors are kindly requested to deliver their presentations to the technicians located in the speakers room (located at Level -1) preferably the day before their presentation or at least one hour before the scheduled session.

**Poster presentations guidelines**
Posters will be displayed in the Exhibition Hall. Posters should be posted by 08.30 and dismantled after 19.30 on the allotted date. The secretariat will not be held liable for any lost or damaged posters. All poster presenters are encouraged to be at their poster panels for discussion with the participants during the time. All posters will be eligible for nomination for the best poster awards in each day.

The material to fix the posters to the panels will be available in the poster area.

## Social Events

**Welcome drink**
Date: Sunday, 5th July
Time: 17.00h - 18.00h
Location: Palau de Congresos de Catalunya's Gardens
This social event is included in the Delegate Registration and in the Accompanying Person Registration

**Spanish Night**
Date: Thursday, 9th July
Time: 21.00h - 23.00h
Location: Poble Espanyol
Avinguda del Marquès de Comillas, 13
08038 Barcelona, Spain
Dress code: Casual

**How to get there:**
Metro: Line 1 / Line 3 - (Espanya station)
Bus: Line 13, 23 & 150
Walking: From Plaça d'Espanya you can walk. It may take around 20min

**Note:** Please note that transport to the Spanish Night site is not provided by the organization.

**Important:** If you have registered for the Spanish Night, you will receive a voucher for the event when you get your name tag. Please make sure you bring the voucher to the event.

## About Barcelona

Barcelona is a dynamic, welcoming city and one of the major economic and business centers of the Mediterranean Europe. The Catalan capital has a modern hotel infrastructure and boasts first rate shops and leisure, cultural and tourist attractions; all these traits have made Barcelona a first class tourist destination, and the ideal place for meetings and congresses. Barcelona enjoys a Mediterranean climate with mild, sunny winters, warm summers and relatively low rain fall. Temperatures during July are usually hot (25 to 30 degrees Celsius).

**Taxis**
Taxis in Barcelona may be ordered by phone, picked up at authorized taxi stands or flagged down in the street. Taxis must usually be paid in cash though some accept credit cards.
**Radio Taxi:** +34 933 03 30 33
**Taxi for disabled people:** +34 935 51 93 68

**Commercial opening times**
Opening times for banks: In general, banks and savings banks open from 08:30 to 14:00 from Monday to Friday. There is an extended cash-point machines all over the city. Shopping centers are open Monday – Saturday from 10:00 - 22:00.

## Useful telephones
For emergencies: 112
Municipal Police: 092
Bus station: +34 934 913 183
RENFE (Spanish railway): Customer Service + 34 902 320 320
Barcelona Airport: +34 902 40 47 04

## Notes

# Notes

Technical Secretariat:

Barceló
CONGRESOS

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