

Confirmed Invited Speakers

as of July 10, 2018

PLENARY & AWARDEE SPEAKERS

ROBERT BUHRMAN

Cornell University

TOMÁŠ JUNGWIRTH

Academy of Sciences of the Czech Republic

SATORU NAKATSUJI

The University of Tokyo

NICOLA SPALDIN

ETH Zurich

WINNER 2018 IUPAP YOUNG SCIENTIST PRIZE IN MAGNETISM

2016: WEI HAN

Peking University

2017: LUQIAO LIU

Massachusetts Institute of Technology

2018: SHINICHIRO SEKI

RIKEN

2018 IUPAP MAGNETISM AWARD AND NÉEL MEDAL AWARDEES

SAMUEL D. BADER

Argonne National Laboratory

RAMAMOORTHY RAMESH

University of California, Berkeley

KANG I. WANG

University of California, Los Angeles

SYMPOSIA

Computing With Spintronic Devices

PAUL CROWELL

University of Minnesota

"Spin transport in Heusler alloy/III-V semiconductor valves"

SHUNSUKE FUKAMI

Tohoku University, RIEC

"Analog spin-orbit torque devices with antiferromagnets for artificial neural networks"

JULIE GROLIER

Université Paris-Sud, CNRS/Thales

"Neuromorphic computing with spin-torque nano-oscillators"

Emerging Phenomena in Van der Waals Magnets

KENNETH BURCH

Boston College

"Exploring Topological Phases with Magnetic 2D Atomic Crystals"

HYEONSIK CHEONG

Sogang University

"Antiferromagnetic ordering in the 2-dimensional limit"

DI XIAO

Carnegie Mellon University

"Tunable magnetic and magneto-optic properties in 2D magnets"

New Routes and Materials Toward Quantum Criticality

MEIGAN ARONSON

Texas A&M University

"Novel quantum critical phenomena in d- and f-electron systems"

IAN FISHER

Stanford University

"Quantum criticality in iron pnictides and beyond"

KAI GRUBE

Karlsruhe Institute of Technology

"Multidimensional entropy landscape of quantum criticality"

Spin Currents and Magnonic Condensates in Magnetic Insulators

IGOR BARSUKOV

University of California, Riverside

"Condensation of magnons by spin Seebeck currents"

BURKARD HILLEBRANDS

TU Kaiserslautern

"Supercurrent in a room-temperature Bose-Einstein magnon condensate"

SE KWON KIM

University of California, Los Angeles

"Magnonic condensates and superfluids"

INVITED SPEAKERS

Strongly Correlated Electrons Systems (SCES)

HIROSHI AMITSUKA

Hokkaido University
"Tests for Magnetoelectric Effects on Antiferromagnetic Metals"

JORDAN BAGLO

University of Cambridge
"High-Pressure Fermiology of the Metallized Mott Insulator NiS₂"

ANNICA BLACK-SCHAFFER

Uppsala University
"Odd-Frequency Superconductivity in Sr₂RuO₄ Measured by Kerr Rotation"

STUART BROWN

University of California
"Normal state properties of Sr₂RuO₄ under strained conditions examined by 17O NMR"

DANIEL BRAITHWAITE

Inac, CEA, U Grenoble Alpes
"Dimensionality driven enhancement of ferromagnetic superconductivity in URhGe"

ONUR ERTEN

Arizona State University
"Skyrme Insulators: Insulators at the Brink of Superconductivity"

MEYDI FERRIER

Université Paris-Sud LPS
"Quantum noise measurement and universal quantum fluctuations in a Kondo-Correlated Quantum Dot out-of-equilibrium"

MARK FISCHER

ETH Zurich
"Superconductivity Without Inversion and Time-Reversal Symmetries"

CHUNYU GUO

Zhejiang University
"Weyl fermions in the heavy-fermion semimetal YbPtBi"

FRANZ HASLBECK

TUM Institute for Advanced Studies; Technical University of Munich
"Interplay of Itinerant and Localized Spin Fluctuations in the Ferromagnetic Superconductor UGe₂"

LIN JIAO

MPI for Chemical Physics of Solids
"Evolution of Electronic Non-Fermi-Liquid Excitations In a Canonical Kondo-Lattice System"

CATHERINE KALLIN

McMaster University
"Sr₂RuO₄: challenges and opportunities"

KAZUSHI KANODA

The University of Tokyo
"Strongly correlated topological states in organics"

EUN-AH KIM

Cornell University
"Applications of machine learning in understanding topological phases"

WILLIAM KNAFO

LNCMI Toulouse / CNRS
"Squeezing out hidden-order in URu₂Si₂ under combined pressure and magnetic field"

GEORG KNEBEL

INAC, CEA, U Grenoble Alpes
"Fermi surface instabilities in Kondo lattices: Ce, Yb, and U"

HSIN-HUA LAI

Rice University
"Weyl-Kondo Semimetals in Heavy-Fermion Systems"

LU LI

University of Michigan
"Quantum Oscillation Measurements on Kondo Insulators SmB₆ and YbB₁₂"

YUAN LI

Peking University
"Robust Dirac Magnons in a Highly Interconnected 3D Spin Lattice"

PHILIPPE MENDELS

Université Paris-Sud
"NMR on Kagome lattices"

ZI YANG MENG

Institute of Physics, Chinese Academy of Sciences
"Continuous quantum phase transition in a local-moment-based metallic ferromagnet"

DRAGAN MIHAILOVIC

Jožef Stefan Institute
"Transient optical spectroscopy."

FREDERIC MILA

EPFL
"Quantum spin liquids: from theory to experiments and numerical simulations"

PHILIP MOLL

MPI for Chemical Physics of Solids
"One-dimensional superconductivity in the three-dimensional metal CeIrIn₅"

CHRISTOPHE MORA

U Paris Diderot, LPA
"Fermi-liquid theory for Kondo quantum dots out-of-equilibrium"

RAYMOND OSBORN

Argonne National Laboratory
“Coherent Band Excitations studied with Inelastic Neutron Scattering”

FRANK POLLMANN

TU Munich
“Signatures of Dirac cones in a DMRG study of the Kagome Heisenberg model”

PRISCILA ROSA

Los Alamos National Laboratory
“High-field and high-pressure phase diagram of CeRhIn5 probed by optical dilatometry”

SUCHITRA SEBASTIAN

Cambridge University
“Fermi surface in the absence of a Fermi liquid in the Kondo insulator SmB6”

EDBERT SIE

Stanford University
“Ultrafast Manipulation of Topological Properties using Shear Strain in a Weyl Semimetal”

FRANK STEGLICH

MPI for Chemical Physics of Solids
“Interplay between unconventional superconductivity and heavy-fermion quantum criticality”

LILING SUN

Institute of Physics, Chinese Academy of Science
“Superconductivity in pressurized CeRhGe3 and related non-centrosymmetric compounds”

ROSER VALENTÍ

Goethe University Frankfurt
“Alpha-RuCl3 beyond magnetic order”

YOUICHI YANASE

Kyoto University
“Moibus topological superconductivity in UPt3”

GERTRUD ZWICKNAGL

TU Braunschweig
“A review of strong correlations in heavy fermion systems”

Spin-Systems and Magnetic Structures

JAMES ANALYTIS

University of California, Berkeley
“Field-induced intertwined orders in 3D Mott-Kitaev honeycomb β -Li2IrO3”

ARNAB BANERJEE

Oak Ridge National Laboratory
“Proximate Kitaev quantum spin liquid behavior in a honeycomb magnet”

BENJAMIN CANALS

Institut NEEL, CNRS, U Grenoble Alpes
“Artificial magnets as model systems : from the fragmentation of magnetization to the 6-vertex model”

BEATRICE GRENIER

Inac, CEA, U Grenoble Alpes
“Topological quantum phase transition in the Ising-like antiferromagnetic spin chain BaCo2V2O8”

ALANNAH HALLAS

McMaster University
“Experimental Insights into Ground State Selection of Quantum XY Pyrochlores”

STEPHEN HILL

Florida State University and NHMFL
“Enhancing coherence in molecular spin qubits via atomic clock transitions”

YUKO HOSOKOSHI

Osaka Prefecture University
“Development of Organic Quantum Magnets”

YIUCHI KASAHARA

Kyoto University
“Thermal Hall conductivity of a Kitaev spin liquid – signature of a Majorana chiral edge current”

PAUL McCLARTY

MPI for the Physics of Complex Systems
“Topological Triplon Modes and Bound States in a Shastry-Sutherland Magnet”

YUKITOSHI MOTOME

The University of Tokyo
“Zero-field Skyrmions with a High Topological Number in Itinerant Magnets”

JULIA MUNDY

Harvard University
“Design and Construction of Oxide Heterostructures with Emergent Multiferroic Properties”

TSUYOSHI OKUBO

The University of Tokyo
“Tensor Network Study of Kitaev Materials”

YOSHINORI ONOSE

The University of Tokyo
"Magnetolectrical control of nonreciprocal microwave response in a multiferroic helimagnet"

NATALIA PERKINS

University of Minnesota
"Probing Majorana's nodal structures in Kitaev spin liquids"

TOBY PERRING

STFC Rutherford Appleton Laboratory
"Magnetic Excitations in the Itinerant Electron Ferromagnet Iron Measured Throughout the Brillouin Zone by Neutron Scattering"

ANDREW PRINCEP

Rutherford Appleton Laboratory;
University of Oxford
"The Final Chapter in the Saga of YIG"

CHRISTIAN RÜEGG

Paul Scherrer Institute
"Spiral spin-liquid and the emergence of a vortex-like state in MnSc₂S₄"

JUDIT ROMHANYI

Okinawa Institute of Science and Technology
"Spin-Orbit Dimers and Non-Collinear Phases in d1 Cubic Double Perovskites"

ANDERS SANDVIK

Boston University
"Nearly Deconfined Spinons in the Heisenberg Antiferromagnet with Four-spin Interactions"

VALERIO SCAGNOLI

ETH Zurich/Paul Scherrer Institute
"Revealing magnetic configurations with X-ray magnetic nanotomography"

SERGEY STRELTSOV

M.N. Miheev Institute of Metal Physics UB of RAS
"Magnetic properties of FeO₂ and FeO₂Hx - novel constituents of Earth's lower mantle"

RINA TAKAGI

RIKEN Center for Emergent Matter Science
"Multiple-q Helimagnetism in an Itinerant Hexagonal Magnet"

KAIYOU WANG

Institute of Semiconductors, Chinese Academy of Sciences
"Control ferromagnets at room temperature without external magnetic field"

BRITTA WILLENBERG RYLL

Helmholtz-Zentrum Berlin
"Complex Field-Induced States in Linarite PbCuSO₄(OH)₂ with a Variety of High-Order Exotic Spin-Density Wave States"

LIUSUO WU

Oak Ridge National Laboratory
"Orbital-exchange and fractional quantum number excitations in an f-electron metal, Yb₂Pt₂Pb and quantum fluctuations in other Yb based compounds"

YONGGANG ZHAO

Tsinghua University
"Electric-field manipulation of magnetism in mesoscopic multiferroic heterostructures"

Spintronics, Magnetization Dynamics, and Micromagnetics

CHRISTOPH ADELMANN

Imec
"Spin-wave device for radio frequency applications"

ANNE BERNARD-MANTEL

Institut NEEL, CNRS, U Grenoble Alpes
"Controlling magnetic skyrmions bubbles"

XIN FAN

University of Denver
"Spin galvanic effect with spin rotation symmetry"

YABIN FAN

University of California, Los Angeles
"Electric-field control of spin-orbit torque in a magnetically doped topological insulator"

CHIRAG GARG

MPI of Microstructure Physics
"Dramatic effect of curvature on motion of chiral domain walls"

TAICHI GOTO

Toyohashi University of Technology
"Spin wave circuits using forward volume mode in yttrium iron garnet"

WEI HAN

Peking University
"Spin Current Quantum Materials"

YOSHIHIRO IWASA

The University of Tokyo
"Superconductivity and spin-valley locking in TMDs"

JUNE-SEO KIM

Daegu Gyeongbuk Institute of Science & Technology (DGIST)
"The correlations among the interfacial Dzyaloshinskii-Moriya interaction and other related interface effects probed by an inelastic light scattering"

KAB-JIN KIM

Korea Advanced Institute of Science and Technology (KAIST)
"Antiferromagnetic spin dynamics at the angular momentum compensation temperature of ferrimagnets"

SANGHOON LEE

Korea University
"Investigation of spin orbit fields in ferromagnetic GaMnAs films and their uses for manipulating magnetization in ferromagnetic semiconductors"

LUQIAO LIU

MIT
"Magnetic Switching with Topological Insulators and Compensated Ferrimagnets"

YURIY MOKROUSOV

Institute for Advanced Simulation, Forschungszentrum Jülich
"A microscopic perspective at THz spinorbitronics"

TAKAHIRO MORIYAMA

Kyoto University
"Spin torque control of antiferromagnetic moments in NiO"

Nanomagnetism

GONG CHEN

University of California, Davis
"Chiral spin textures in in-plane magnets and graphene-induced DM Interaction"

SERGIO REZENDE

Universidade Federal de Pernambuco
"Magnon-phonon conversion in a nonuniform magnetic field and detection of the phonon spin"

NITIN SAMARTH

Penn State University
"Topological spintronics"

TAKURO SATO

RIKEN Center for Emergent Matter Science
"Current-induced skyrmion dynamics probed by resistance noise spectroscopy"

KATRIN SCHULTHEISS

Helmholtz-Zentrum Dresden - Rossendorf
"How to Generate Whispering Gallery Magnons"

LIBOR ŠMEJKAL

Johannes Gutenberg University; Academy of Sciences of the Czech Republic
"Classification of topological antiferromagnets for spintronics"

CHRISTIAN STAMM

ETH Zurich
"Spin Hall Effect Induced Magnetism in Nonmagnetic Metals"

HIROAKI SUKAGAWA

National Institute for Materials Science (NIMS)
"Synthesis of spinel tunnel barriers for advanced spintronics devices"

STEVE CONOLLY

University of California, Berkeley
"Magnetic particle imaging: current state and future trends"

ZHENSHENG TAO

University of Colorado, Boulder
"Probing out-of-equilibrium laser-induced magnetic phase transition with fs resolution"

LAURA THEVENARD

Institut des Nanosciences de Paris, Sorbonne University
"Manipulation of magnetization in ferromagnetic semiconductors by ultrafast laser pulses and acoustic waves"

NICOLAS THIERY

CEA-Grenoble
"Spin-waves propagation in ultra-thin film of YIG driven in a non-equilibrium state by large spin-orbit torque"

TOENO VAN DER SAR

Delft University of Technology
"Control and Local Measurement of the Spin Chemical Potential in a Magnetic Insulator"

EDO WAKS

Institute for Research in Electronics and Applied Physics (IREAP), University of Maryland
"Activation of Microwave Fields in a Spin-Torque Nano-Oscillator by Neuronal Action Potentials"

SEONGHOON WOO

Korea Institute of Science and Technology
"Topological manipulation of magnetic skyrmions in magnetic multilayers at room temperature"

HYUNSOO YANG

National University of Singapore
"Bilinear magneto-electric resistance in topological surface states"

THOMAS CRAWFORD

University of South Carolina
"Magnetic nanoparticle assembly in extreme force gradients"

DAN DAHLBERG

University of Minnesota
"Emergence of 1/f noise from ensembles of coupled nanomagnets"

AHMED EL-GENDY

University of Texas at El Paso
"Rare-earth free permanent nanomagnets: CoxC, CoFexC and MnxGa nanoparticles"

ANTONIO GARCIA-MARTIN

Instituto de Microelectrónica de Madrid. IMM (CNM-CSIC)
"Resonant Magneto-Optically Active Structures: External Control and Enhancement"

SEBASTIAN GLIGA

The University of Glasgow
"Emergent dynamic chirality in a thermally driven artificial spin ratchet"

ALEXANDER GRUTTER

NIST Center for Neutron Research
"Resolving the three-dimensional magnetic configuration of nanowire arrays using neutron techniques"

QING-LIN HE

University of California, Los Angeles
"Topology and Antiferromagnetic Proximity Interactions at (Bi,Sb)2Te3-based Interfaces"

WANJUN JIANG

Tsinghua University
"Spin-orbit physics in magnetic multilayer films."

MATTHIAS BENJAMIN JUNGFLIECH

Argonne National Laboratory
"Spin dynamics in artificial spin ice"

MIGUEL KIWI

Universidad de Chile
"Exchange-Bias in dipole coupled trilayers: experiment and theory"

JANIS KLIAVA

Université de Bordeaux
"Magnetic Nanoparticles in Borate Glasses: Theory, Experiment, Modelling, Application Prospective"

CHRIS LEIGHTON

University of Minnesota
"Ion gel gate-control of ferromagnetism in epitaxial perovskite oxides"

KAI LIU

University of California, Davis
Georgetown University
"Magneto-Ionic Control of Exchange Bias"

JUAN PALMA

Universidad Central de Chile; Center for the Development of Nanoscience and Nanotechnology CEDENNA
"Magnetic Properties of Fe3O4 Antidots Arrays Synthesized by Atomic Layer Deposition and Focused Ion Beam Lithography"

MARTINO POGGIO

University of Basel
"Magnetization configurations and reversal of individual ferromagnetic nanotubes"

ADRIAN QUESADA

Instituto de Cerámica y Vidrio, CSIC
"Studying the 3D magnetization of ultrathin and antiphase-boundary free spinel crystals"

YAYOI TAKAMURA

University of California, Davis
"Spin engineering in complex oxide heterostructures: From textures to spin ice"

KATHARINA THEIS-BRÖHL

University of Applied Sciences Bremerhaven
"Self-assembled layering of magnetic nanoparticles in a ferrofluid onto solid surfaces"

JOOST VAN BREE

Eindhoven University of Technology
"Atomic-Scale Magnetometry of Dynamic Magnetization"

PAOLO VAVASSORI

CIC nanoGUNE
"Magneto-plasmonic nanostructures and crystals: principles and applications"

JOSE LUIS VICENT

Universidad Complutense de Madrid
"Probing artificial magnetic spin ices by vortex dynamics in hybrid systems."

STEPHEN WILSON

University of California, Santa Barbara
"Interface and confinement driven spin correlations in titanate heterostructures"

DI YI

Stanford University
"Emergent Interfacial Ferromagnetism and Perpendicular Magnetic Anisotropy in 5d Transition Metal Oxide Based Heterostructures"

Magnetic Materials and Technologies

JENNIFER ANDREW

University of Florida
"Nanoparticle-based theranostics"

BERNARD DIÉNY

SPINTEC
"Novel approach for nano-patterning magnetic tunnel junctions stacks at narrow pitch: A route towards high density STT-MRAM applications"

MICHAEL FARLE

University of Duisburg-Essen
"Functionalized Nanohybrids for magnetocalorics and permanent magnets"

VICTORINO FRANCO

Sevilla University
"Quantitative analysis of the hysteresis of magnetocaloric materials"

PAULO FREITAS

International Iberian Nanotechnology Laboratory
"TMR sensors: challenges and applications"

MATTHIAS GOTTWALD

IBM T.J. Watson Research Center
"Advances in STT-MRAM materials"

HEIKE HERPER

Uppsala University
"Optimizing the magnetic performance of REFe_{12-x}M_x phases – an ab initio study"

SATOSHI HIROSAWA

National Institute for Materials Science (NIMS)
"Permanent Magnets Beyond Nd-Dy-Fe-B"

JEAN ANNE INCORVIA

University of Texas at Austin
"Low energy magnetic domain wall logic in short, narrow, ferromagnetic wires"

VINCENT JACQUES

CNRS/LPS, Université Paris-Sud
"Imaging magnetism at the nanoscale with a single spin microscope"

CHEOLGI KIM

Daegu Gyeongbuk Institute of Science & Technology (DGIST)
"Micro-magnetic tracks for logical manipulation of living cells toward cells-on-chip"

HIROAKI KURA

DENSO Corporation
"Synthesis of single-phase L10-FeNi magnet powder by nitrogen insertion and topotactic extraction"

PING LIU

University of Texas at Arlington
"Rare-earth-free permanent magnets based on transition-metal nanowires: how far can we go?"

ASUKA NAMAI

The University of Tokyo
"Rhodium substituted ε-iron oxide (ε-Rh_xFe_{2-x}O₃: 0 ≤ x ≤ 0.14) nanomagnets, which exhibit high frequency millimeter wave absorption up to 209 GHz"

HENDRIK OHLDA

SLAC National Accelerator Laboratory
"Ultrafast and Very Small: Discover Nanoscale Magnetism With Picosecond Time Resolution Using X-Rays"

ECKHARD QUANDT

University of Kiel
"Magnetostrictive multilayers for magnetoelectric magnetic field sensors"

RAMAMOORTHY RAMESH

University of California, Berkeley
"Electric Field Control of Magnetism"

SOPHIE RIVOIRARD

Institut Néel CNRS
"Recycling and Valorisation of Rare Earth-based magnets"

JUSTIN SHAW

NIST
"Ultra-low damping materials"

ANDRZEJ STUPAKIEWICZ

University of Bialystok
"Ultrafast Non-dissipative Photo-magnetic Recording"

JAN-ULRICH THIELE

Seagate Technology
"Heat Assisted Magnetic Recording – Next Generation Mass Storage Technology"