

Magnetism Division Fachverband Magnetismus (MA)

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Overview of Invited Talks and Sessions (Lecture Rooms H3, H10, H16 (Tuesday), H22, H23; Poster D)

Thyssen-Krupp Electrical Steel Dissertationspreis

Monday 12:30–14:10 H3

Four candidates will compete for the prize. Please attend!

PhD-Student Symposium jointly with jDPG

Tuesday 09:30 – 13:45 H16

Topological Defects in Magnetic Materials: from Devices to Cosmos

Focus Session “Magnetic Excitations: from surfaces down to adatoms (jointly with O)”

MA 10.1	Mon	15:00–15:30	H23	Tailoring magnetic excitations in low-dimensional ferromagnets — •KHALIL ZAKERI LORI
MA 10.2	Mon	15:30–16:00	H23	Theory of spin waves in ultrathin ferromagnetic films — •ROBERTO MUNIZ, ANTONIO COSTA
MA 10.3	Mon	16:00–16:30	H23	Magnetic excitations in all metallic nanostructures — •WULF WULFHEKEL
MA 10.4	Mon	16:30–17:00	H23	Magnetization dynamics derived from excitations of single magnetic atoms on surfaces — •ALEXANDER AKO KHAJETOORIANS
MA 10.5	Mon	17:00–17:30	H23	Theory of dynamical magnetic excitations in itinerant nanomagnets — •SAMIR LOUNIS

Focus Session “Terahertz Spintronics”

MA 12.1	Tue	9:30–10:00	H10	Ultrafast magnetization enhancement in metallic multilayers driven by superdiffusive spin current — •ROMAN ADAM, CHAN LA-O-VORAKIAT, MARCO BATTIATO, DENNIS RUDOLF, JUSTIN M. SHAW ⁴ , EMRAH TURGUT, PABLO MALDONADO, STEFAN MATHIAS, PATRIK GRYCHTOL, HANS T. NEMBACH, THOMAS J. SILVA, MARTIN AESCHLIMANN, HENRY C. KAPTEYN, MARGARET M. MURNANE, CLAUD M. SCHNEIDER, PETER M. OPPENEER
MA 12.2	Tue	10:00–10:30	H10	New frontiers of ultrafast spin manipulation: femtosecond spin superdiffusion — •MARCO BATTIATO
MA 12.3	Tue	10:30–11:00	H10	Engineering of terahertz spin currents in magnetic heterostructures — •T. KAMPFRATH, M. BATTIATO, P. MALDONADO, G. EILERS, J. NÖTZOLD, S. MÄHRLEIN, V. ZBARSKY, I. RADU, F. FREIMUTH, Y. MOKROUSOV, S. BLÜGEL, M. WOLF, P. M. OPPENEER, M. MÜNZENBERG
MA 12.4	Tue	11:00–11:30	H10	Ultrafast spin dynamics induced by laser-generated spin currents in metallic multilayers probed by non-linear magneto-optics — •ALEXEY MELNIKOV
MA 12.5	Tue	11:30–12:00	H10	Ultra-fast spin currents in transparent magnetic tunnel junctions — •ANDY THOMAS

Focus Session “Magnetic Damping Phenomena in Thin Films and Nanostructures(jointly with DS)”

MA 31.1	Wed	15:00–15:30	H10	An overview of magnetic damping in ferromagnets — ●ROBERT MCMICHAEL
MA 31.2	Wed	15:30–16:00	H10	Magnetic Damping on Femtosecond Time Scales — ●MARKUS MÜNZENBERG
MA 31.3	Wed	16:00–16:30	H10	Two-Magnon Excitations: From Periodical Perturbations to Magnonic Crystals — ●KILIAN LENZ
MA 31.4	Wed	16:30–17:00	H10	Gilbert damping parameter from first-principles — ●DIEMO KÖDDERITZSCH, SERGIY MANKOVSKY, HUBERT EBERT, GEORG WOLTERS DORF
MA 31.5	Wed	17:00–17:30	H10	Spin dynamics and relaxation in ferrimagnets — FRANK SCHLICKEISER, SÖNKE WIENHOLDT, DENISE HINZKE, ●ULRICH NOWAK

Focus Session “Spin Current Devices”

MA 32.1	Thu	9:30–10:00	H10	Spin Hall and spin Nernst effect from first principles — ●INGRID MERTIG
MA 32.2	Thu	10:00–10:30	H10	Spin currents in ferromagnetic insulator/normal metal hybrids — ●MATTHIAS ALTHAMMER
MA 32.3	Thu	10:30–11:00	H10	From magnon flow to spin current and back — ●ANDRII CHUMAK
MA 32.4	Thu	11:00–11:30	H10	Interaction between spin waves and magnetic domain walls in insulating ferromagnets — ●PENG YAN
MA 32.5	Thu	11:30–12:00	H10	Current driven domain wall dynamics controlled by proximity induced interface magnetization — ●STUART PARKIN

Invited Talks

MA 4.1	Mon	9:30–10:00	H10	Breaking time reversal symmetry in topological insulators — ●JAGADEESH MOODERA
MA 5.1	Mon	15:00–15:30	H10	The THz response of topological insulator surface states — ●N. PETER ARMITAGE
MA 7.1	Mon	9:30–10:00	H22	Time-of-Flight Magnetic Flow Cytometry — ●MICHAEL HELOU, MATHIAS REISBECK, LUKAS RICHTER, JACOBUS BOSCH, ROLAND STAUBER, ECKHARD QUANDT, OLIVER HAYDEN
MA 17.1	Tue	9:30–10:00	H22	Magnetometry to identify the origin of printed documents — ●ANNA S. SEMISALOVA, VLADIMIR N. NIKIFOROV, NIKOLAI S. PEROV
MA 18.1	Tue	9:30–10:00	H16	Skyrmions in magnets — ●MAXIM MOSTOVOY
MA 18.2	Tue	10:00–10:30	H16	Experimental studies of skyrmions in chiral magnets — ●CHRISTIAN PFLEIDERER
MA 36.1	Thu	9:30–10:00	H3	Towards single Nanoparticle detection: Element Specific Ferromagnetic Resonance - Microresonators in ScanningTransmission X-ray Microscopy — ●KATHARINA OLLEFS
MA 44.1	Thu	15:00–15:30	H3	Spin-polarized scanning field emission microscopy and spectroscopy — ●ANIKA SCHLENHOFF

Topical Talks

MA 10.1	Mon	15:00–15:30	H23	Tailoring magnetic excitations in low-dimensional ferromagnets — ●KHALIL ZAKERI LORI
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MA 12.5	Tue	11:30–12:00	H10	Ultra-fast spin currents in transparent magnetic tunnel junctions — ●ANDY THOMAS
MA 18.5	Tue	11:15–11:45	H16	Topological Defects and Quantum Computing — ●SIMON TREBST
MA 18.6	Tue	11:45–12:15	H16	Cosmic strings in multiferroics — ●NICOLA SPALDIN
MA 18.8	Tue	12:45–13:15	H16	Topological physics: from quantum Hall Skyrmions to optical Chern lattices — ●RODERICH MOESSNER
MA 18.9	Tue	13:15–13:45	H16	Magnetricity and Magnetic Monopoles in Spin ice — ●STEVE BRAMWELL
MA 31.1	Wed	15:00–15:30	H10	An overview of magnetic damping in ferromagnets — ●ROBERT MCMICHAEL
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Symposium SYBD “Magnetic Particles in Biomedical Diagnostics and Therapy”

SYBD 1.1	Mon	15:00–15:30	H1	Functionalization and Pharmaceutical Aspects of Magnetic Nanoparticles (Magnetic Carriers) — ●URS O. HÄFELI
SYBD 1.2	Mon	15:30–16:00	H1	Fluid mechanical aspects of therapeutic application of suspensions of magnetic nanoparticles — ●STEFAN ODENBACH
SYBD 1.3	Mon	16:00–16:30	H1	Magnetic Particle Imaging: A new Medical Imaging Modality — ●THORSTEN BUZUG
SYBD 1.4	Mon	16:30–17:00	H1	Superparamagnetic iron oxide nanoparticles for MR-visible mesh implants and novel drug targeting models — ●IOANA SLABU, ANJALI ROETH, CHRISTIANE KUHL, THOMAS SCHMITZ-RODE, MARTIN BAUMANN
SYBD 1.5	Mon	17:00–17:30	H1	Magnetic measurement techniques assisting biomedical applications of magnetic nanoparticles — ●LUTZ TRAHMS

Symposium SYSC “Strong Coupling in Solid State Quantum Systems”

SYSC 1.1	Tue	9:30–10:00	H1	Exploring the Physics of Superconducting Qubits Strongly Coupled to Microwave Frequency Photons — ●ANDREAS WALLRAFF
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SYSC 1.2	Tue	10:00–10:30	H1	Hybrid Quantum Circuit with a Superconducting Qubit Coupled to an Electron Spin Ensemble — •YUIMARU KUBO, CECILE GREZES, IGOR DINIZ, JUN-ICHI ISOYA, VINCENT JACQUES, ANAIS DREAU, JEAN-FRANÇOIS ROCH, ALEXIA AUFFEVE, DENIS VION, DANIEL ESTEVE, PATRICE BERTET
SYSC 1.3	Tue	10:30–11:00	H1	Hybrid Quantum Systems with Rare-Earth Ion Spin Ensemble — •PAVEL BUSHEV
SYSC 1.4	Tue	11:00–11:30	H1	Quantum Coherent Coupling between a Mechanical Oscillator and an Optical Mode — EWOLD VERHAGEN, DALZIEL WILSON, VIVISHEK SUDHIR, NICOLAS PIRO, ALBERT SCHLIESSER, •TOBIAS KIPPENBERG
SYSC 1.5	Tue	11:30–12:00	H1	Exploring Quantum Light-Matter Interactions of Quantum Dots in Photonic Crystal Nanostructures — •JONATHAN FINLEY, ARNE LAUCHT, MICHAEL KANIBER, STEFAN LICHTMANNECKER, THORSTEN REICHERT, GUENTHER REITHMAIER, FABRICE LAUSSY, ULRICH HOHENEESTER

Symposium SYTS “Thermoelectric and Spincaloric Transport in Nanostructures”

SYTS 1.1	Wed	9:30–10:00	H1	Transport in Old and New Thermoelectric Materials — •DAVID SINGH
SYTS 1.2	Wed	10:00–10:30	H1	Binary oxide structures as model systems for thermoelectric transport — •PETER J. KLAR, CHRISTIAN HEILIGER
SYTS 1.3	Wed	10:30–11:00	H1	Functional oxides films: from single crystals to polycrystalline substrates — •WILFRID PRELLIER
SYTS 1.4	Wed	11:00–11:30	H1	The Planar Nernst Effect and the Search for Thermal Spin Currents in Ferromagnetic Metals — •BARRY ZINK
SYTS 1.5	Wed	11:30–12:00	H1	Tunneling magneto thermopower in magnetic tunnel junction nanopillars — NIKLAS LIEBING, SANTIAGO SERRANO-GUISAN, PATRYK KRZYSZTECZKO, KARSTEN ROTT, GÜNTER REISS, JÜRGEN LANGER, BERTHOLD OCKER, •HANS WERNER SCHUMACHER

Symposium SYPM “Photons for Magnetism”

SYPM 1.1	Thu	15:00–15:30	H1	Ultrafast emergence of nanoscale ferromagnetism far from equilibrium — •HERMANN DÜRR
SYPM 1.2	Thu	15:30–16:00	H1	Free-Electron Laser for Ultrafast Measurements in Material Science — •SVEN REICHE
SYPM 1.3	Thu	16:00–16:30	H1	Nanomagnetism seen by Femtosecond X-rays — •STEFAN EISEBITT
SYPM 1.4	Thu	16:30–17:00	H1	Ultrashort Radiation Pulses at Storage Rings — •HOLGER HUCK
SYPM 1.5	Thu	17:00–17:30	H1	Every atom counts - Magnetic properties of supported metal atoms and small alloy clusters — TORBEN BEECK, IVAN BAEV, STEFFEN PALUTKE, KAI CHEN, SÖREN MEYER, KARI JÄNKÄLÄ, MICHAEL MARTINS, •WILFRIED WURTH

Symposium SYES “Frontiers of Electronic Structure Theory: Discovery of Novel Functional Materials”

SYES 1.1	Fri	9:30–10:00	H1	Molecular dynamics simulation of nucleation and growth of crystals from solution — •MICHELE PARRINELLO
SYES 1.2	Fri	10:00–10:30	H1	Describing, understanding, and discovering hybrid materials from first principles — •CLAUDIA DRAXL
SYES 1.3	Fri	10:30–11:00	H1	Mapping the Electronic Structure Landscape for Materials Discovery — •KRISHNA RAJAN
SYES 1.4	Fri	11:00–11:30	H1	New ferroelectrics and antiferroelectrics by design — •KARIN RABE
SYES 1.5	Fri	11:30–12:00	H1	The Materials Project: The design of materials using high-throughput ab initio computations — •GERBRAND CEDER

Sessions

MA 1.1–1.2	Sun	16:00–18:00	H10	Tutorial: Spindynamics and Spintransport
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MA 2.1–2.10	Mon	9:30–12:00	H3	Multiferroics 1 (jointly with DF,DS,KR,TT)
MA 3.1–3.13	Mon	15:00–18:30	H3	Multiferroics 2 (jointly with DF,DS,KR,TT)
MA 4.1–4.4	Mon	9:30–10:45	H10	Topological Insulators 1 (jointly with DS,HL,O,TT)
MA 5.1–5.10	Mon	15:00–18:00	H10	Topological Insulators 2 (jointly with DS,HL,O,TT)
MA 6.1–6.5	Mon	15:00–17:45	H20	Focused Session: Correlations in Topological Bands (jointly with DS, HL, MA, and O)
MA 7.1–7.5	Mon	9:30–11:15	H22	Magnetic Particles in Biomedical Diagnostics and Therapy (jointly with BP, CPP, ST)
MA 8.1–8.11	Mon	9:30–12:30	H23	Spin Excitations and Spin Torque
MA 9.1–9.14	Mon	15:00–18:45	H22	Spincaloric Transport (jointly with TT)
MA 10.1–10.5	Mon	15:00–17:30	H23	Focus Session: Magnetic Excitations: from surfaces down to adatoms (jointly with O)
MA 11.1–11.4	Mon	12:15–13:55	H3	ThyssenKrupp Electrical Steel Dissertationspreis 2013 der AG Magnetismus
MA 12.1–12.5	Tue	9:30–12:00	H10	Focus Session: Terahertz Spintronics
MA 13.1–13.12	Tue	9:30–12:45	H17	Graphene - Electronic Properties and Transport 2 (jointly with DS, HL, MA, and O)
MA 14.1–14.10	Tue	9:30–12:00	H23	Micromagnetic Simulation and Electron Theory of Magnetism
MA 15.1–15.10	Tue	9:30–12:00	H3	Spintronics and Magnetic Semiconductors (jointly with HL)
MA 16.1–16.85	Tue	10:30–13:30	Poster D	Poster I
MA 17.1–17.11	Tue	9:30–13:00	H22	Magnetic Particles and Clusters (jointly with CPP, BP)
MA 18.1–18.9	Tue	9:30–13:45	H16	Topological Defects in Magnetic Materials: from Devices to Cosmos (PhD-Student Symposium jointly with jDPG)
MA 19.1–19.11	Tue	10:30–13:15	H33	Surface and Interface Magnetism I (jointly with O)
MA 20.1–20.13	Wed	9:30–13:00	H17	Graphene: Characterization and devices (HL, jointly with DS, MA, O, TT)
MA 21.1–21.5	Wed	9:30–12:00	H1	Thermoelectric and Spincaloric Transport in Nanostructures
MA 22.1–22.12	Wed	9:30–12:45	H2	Transport: Molecular Electronics (jointly with CPP, HL, and MA)
MA 23.1–23.10	Wed	9:30–12:15	H23	Spin Effects in Molecules at Surfaces (jointly with DS, O)
MA 24.1–24.11	Wed	9:30–12:15	H22	Magnetic Imaging and Scattering Techniques
MA 25.1–25.12	Wed	9:30–12:30	H10	Magnetic Heusler Compounds
MA 26.1–26.10	Wed	9:30–12:15	H3	Magnetic Thin Films I of 2
MA 27.1–27.10	Wed	15:00–17:45	H3	Magnetic Thin Films II of 2
MA 28.1–28.11	Wed	15:00–18:00	H22	Magnetic Materials
MA 29.1–29.11	Wed	15:00–18:00	H23	Micro- and Nanostructured Magnetic Materials
MA 30.1–30.6	Wed	15:00–18:00	H20	Focused Session: Majorana Fermions in Condensed Matter (jointly with DS, HL, MA, and O)
MA 31.1–31.5	Wed	15:00–17:30	H10	Focus Session: Magnetic Damping Phenomena in Thin Films and Nanostructures (jointly with DS)
MA 32.1–32.5	Thu	9:30–12:00	H10	Focus Session: Spin Current Devices
MA 33.1–33.10	Thu	9:30–12:00	H22	Magnetization Dynamics I of 3
MA 34.1–34.10	Thu	10:30–13:00	H33	Surface and Interface Magnetism II (jointly with O)
MA 35.1–35.9	Thu	9:30–11:45	H23	Magnetic Oxides and Shape Memory Alloys (jointly with MM)
MA 36.1–36.7	Thu	9:30–11:30	H3	Magnetic Measurement Techniques
MA 37.1–37.9	Thu	9:30–13:30	H32	Focus Session: Organic Materials for Spintronics: From Spin-Interface to Devices (jointly with HL, MA, O)
MA 38.1–38.13	Thu	9:30–13:00	H18	Transport: Spintronics, Magnetotransport 1 (jointly with HL&MA)
MA 39.1–39.7	Thu	9:30–12:45	H20	Focused Session: Magnetism & Superconductivity in Fe-based Pnictides and Chalcogenides (jointly with MA)
MA 40.1–40.8	Thu	15:00–17:15	H23	Molecular Magnetism
MA 41.1–41.10	Thu	15:00–18:00	H18	Topological Insulators 4 (jointly with DS, HL, MA, and O)
MA 42.1–42.5	Thu	15:00–17:45	H20	Focus Session: Dynamical Mean-Field Approach to Correlated Electron Materials (jointly with MA)
MA 43.1–43.11	Thu	15:00–17:45	H22	Magnetization Dynamics II of 3
MA 44.1–44.13	Thu	15:00–18:45	H3	Surface Magnetism (jointly with O)
MA 45.1–45.14	Thu	15:00–18:45	H10	Magnetic Coupling and Spin Structures
MA 46.1–46.13	Fri	9:30–13:00	H18	Topological Insulators 5 (jointly with DS, HL, MA, and O)
MA 47.1–47.4	Fri	9:30–10:30	H20	Transport: Spintronics, Magnetotransport 2 (jointly with HL&MA)

MA 48.1–48.12	Fri	9:30–12:45	H23	Spin-dependent Transport Phenomena
MA 49.1–49.10	Fri	9:30–12:00	H22	Magnetization Dynamics III of 3
MA 50.1–50.82	Fri	10:30–13:30	Poster D	Poster II

General Meeting of the Magnetism Section (Fachverband Magnetismus)

Wednesday 18:15–19:30 H10

All members of the Magnetism Section are invited to participate!