

Magnetism Division Fachverband Magnetismus (MA)

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Overview of Invited Talks and Sessions

(Lecture halls H37, H43, H47, and H48; Poster P2 and P4)

Invited Talks

MA 10.1	Mon	15:00–15:30	H47	Magnetic vortices: into the third dimension — ●SEBASTIAN GLIGA
MA 12.1	Tue	9:30–10:00	H37	Topological spin structures at surfaces — ●STEFAN HEINZE
MA 14.1	Tue	9:30–10:00	H47	Overriding universality of ferromagnetic phase transitions through nano-scale materials design — ●ANDREAS BERGER
MA 17.1	Tue	15:00–15:30	H43	Ultimately fast, small and energy-efficient magnetism: fundamentals and prospects — ●JOHAN MENTINK
MA 17.2	Tue	15:30–16:00	H43	From spintronics at limiting temporal and spatial scales in antiferromagnets to an emerging altermagnetic phase — ●TOMAS JUNGWIRTH
MA 17.3	Tue	16:00–16:30	H43	An electronic structure viewpoint on candidate van der Waals ferromagnets — ●PHIL KING, MATT WATSON, BRENDAN EDWARDS, AKHIL RAJAN, JIAGUI FENG, DEEP BISWAS, MONICA CIOMAGA HATNEAN, AMELIA HALL, GEETHA BALAKRISHNAN, GIOVANI VINAI, DAVID BURN, THORSTEN HESJEDAL, GERRIT VAN DER LAAN, OLIVER DOWINTON, SAEED BAHRAMY
MA 17.4	Tue	16:30–17:00	H43	Nano-scale skyrmions and atomic-scale spin textures studied with STM — ●KIRSTEN VON BERGMANN
MA 20.1	Wed	9:30–10:00	H37	Recent developments in X-ray three-dimensional magnetic imaging — ●VALERIO SCAGNOLI
MA 20.2	Wed	10:00–10:30	H37	Magnetic depth profiling with x-ray resonant magnetic reflectivity (XRMR) — ●TIMO KUSCHEL
MA 20.3	Wed	10:30–11:00	H37	Magnetic Bragg Ptychography Studies of Spin Caloritronic — ●DINA CARBONE, PENG LI, STEPHAN GEPRÄGS, RUDOLF GROSS, PAUL EVANS, VIRGINIE CHAMARD, DAN MANNIX
MA 20.4	Wed	11:15–11:45	H37	Imaging the 3D magnetic texture of skyrmion tubes and approaches towards determining their Hall signature — ●B. RELLINGHAUS, S. SCHNEIDER, D. WOLF, U.K. RÖSSLER, M. SCHMIDT, A. KOVÁCS, R.E. DUNIN-BORKOWSKI, D. POHL, A. THOMAS, D. KRIEGER, B. BÜCHNER, A. LUBK
MA 20.5	Wed	11:45–12:15	H37	Determination of spin chirality and helicity angle by circular dichroism in soft x-ray absorption and resonant elastic scattering — ●GERRIT VAN DER LAAN
MA 20.6	Wed	12:15–12:45	H37	Identification of complex spin-textures by novel Hall effects — ●JUBA BOUAZIZ, HIROSHI ISHIDA, SAMIR LOUNIS, STEFAN BLÜGEL
MA 31.1	Thu	15:00–15:30	H37	Neutron scattering on magnetic topological materials: From topological magnon insulators to emergent many-body effects — ●YIXI SU

Invited Talks of the joint Symposium Frontiers of Orbital Physics: Statics, Dynamics, and Transport of Orbital Angular Momentum (SYOP)

See SYOP for the full program of the symposium.

SYOP 1.1	Mon	9:30–10:00	H1	Orbital degeneracy in transition metal compounds: Jahn-Teller effect, spin-orbit coupling and quantum effects — ●DANIEL KHOMSKII
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SYOP 1.2	Mon	10:00–10:30	H1	Orbital magnetism out of equilibrium: driving orbital motion with fluctuations, fields and currents — ●YURIY MOKROUSOV
SYOP 1.3	Mon	10:30–11:00	H1	Orbitronics: new torques and magnetoresistance effects — ●MATHIAS KLÄUI
SYOP 1.4	Mon	11:15–11:45	H1	Orbital and total angular momenta dichroism of the THz vortex beams at the antiferromagnetic resonances — ●ANDREI SIRENKO
SYOP 1.5	Mon	11:45–12:15	H1	Observation of the orbital Hall effect in a light metal Ti — ●GYUNG-MIN CHOI

Invited Talks of the joint Symposium SKM Dissertation Prize 2022 (SYSD)

See SYSD for the full program of the symposium.

SYSD 1.1	Mon	10:15–10:45	H2	Charge localisation in halide perovskites from bulk to nano for efficient optoelectronic applications — ●SASCHA FELDMANN
SYSD 1.2	Mon	10:45–11:15	H2	Nonequilibrium Transport and Dynamics in Conventional and Topological Superconducting Junctions — ●RAFFAEL L. KLEES
SYSD 1.3	Mon	11:15–11:45	H2	Probing magnetostatic and magnetotransport properties of the antiferromagnetic iron oxide hematite — ●ANDREW ROSS
SYSD 1.4	Mon	11:45–12:15	H2	Quantum dot optomechanics with surface acoustic waves — ●MATTHIAS WEISS

Invited Talks of the joint Symposium United Kingdom as Guest of Honor (SYUK)

See SYUK for the full program of the symposium.

SYUK 1.1	Wed	9:30–10:00	H2	Structure and Dynamics of Interfacial Water — ●ANGELOS MICHAELIDES
SYUK 1.2	Wed	10:00–10:30	H2	A molecular view of the water interface — ●MISCHA BONN
SYUK 1.3	Wed	10:30–11:00	H2	Motile cilia waves: creating and responding to flow — ●PIETRO CICUTA
SYUK 1.4	Wed	11:00–11:30	H2	Cilia and flagella: Building blocks of life and a physicist's playground — ●OLIVER BÄUMCHEN
SYUK 1.5	Wed	11:45–12:15	H2	Computational modelling of the physics of rare earth - transition metal permanent magnets from SmCo_5 to $\text{Nd}_2\text{Fe}_{14}\text{B}$ — ●JULIE STAUNTON
SYUK 2.1	Wed	15:00–15:30	H2	Hysteresis Design of Magnetic Materials for Efficient Energy Conversion — ●OLIVER GUTFLEISCH
SYUK 2.2	Wed	15:30–16:00	H2	Non-equilibrium dynamics of many-body quantum systems versus quantum technologies — ●IRENE D'AMICO
SYUK 2.3	Wed	16:00–16:30	H2	Quantum computing with trapped ions — ●FERDINAND SCHMIDT-KALER
SYUK 2.4	Wed	16:45–17:15	H2	Breaking the millikelvin barrier in cooling nanoelectronic devices — ●RICHARD HALEY
SYUK 2.5	Wed	17:15–17:45	H2	Superconducting Quantum Interference Devices for applications at mK temperatures — ●SEBASTIAN KEMPF

Sessions

MA 1.1–1.1	Sun	16:00–17:30	H1	Tutorial: Careers in Science (joint session MA/TUT)
MA 2.1–2.4	Mon	9:30–10:30	H37	Magnetic Imaging Techniques
MA 3.1–3.3	Mon	9:30–10:15	H43	Spin-Dependent Phenomena in 2D
MA 4.1–4.4	Mon	9:30–10:30	H47	Disordered Magnetic Materials
MA 5.1–5.4	Mon	9:30–10:30	H48	Magnetic Instrumentation and Characterization
MA 6.1–6.4	Mon	11:00–12:00	H37	Complex Magnetic Oxides
MA 7.1–7.4	Mon	11:00–12:00	H43	Magnetic Relaxation and Gilbert Damping
MA 8.1–8.12	Mon	15:00–18:00	H37	Ultrafast Magnetization Effects 1
MA 9.1–9.4	Mon	15:00–17:00	H43	INNOMAG e.V. Prizes 2022 (Diplom-/Master and Ph.D. Thesis)
MA 10.1–10.6	Mon	15:00–16:45	H47	Non-Skyrmionic Magnetic Textures
MA 11.1–11.8	Mon	15:00–17:00	H48	Computational Magnetism 1
MA 12.1–12.12	Tue	9:30–12:45	H37	Skyrmions 1 (joint session MA/KFM)
MA 13.1–13.12	Tue	9:30–12:30	H43	Magnonics 1
MA 14.1–14.9	Tue	9:30–12:00	H47	Cooperative Phenomena: Spin Structures and Magnetic Phase Transitions

MA 15.1–15.8	Tue	9:30–11:30	H48	Computational Magnetism 2
MA 16.1–16.11	Tue	15:00–17:45	H37	Frustrated Magnets
MA 17.1–17.4	Tue	15:00–17:00	H43	PhD Focus Session: The Hitchhiker’s Guide to Spin Phenomena at the Space and Time Limit
MA 18.1–18.9	Tue	15:00–17:15	H47	Spintronics
MA 19.1–19.64	Tue	17:30–20:00	P2	Poster 1
MA 20.1–20.7	Wed	9:30–13:00	H37	Focus Session: Revealing Multidimensional Spin Textures and their Dynamics via X-rays and Electrons
MA 21.1–21.11	Wed	9:30–12:15	H43	Terahertz Spintronics
MA 22.1–22.9	Wed	9:30–11:45	H47	Thin Films: Magnetic Coupling Phenomena / Exchange Bias / Magnetic Anisotropy
MA 23.1–23.5	Wed	9:30–10:45	H48	Magnetic Domain Walls
MA 24.1–24.12	Wed	15:00–18:00	H37	Spin Transport and Orbitronics, Spin-Hall Effects
MA 25.1–25.8	Wed	15:00–17:00	H43	Ultrafast Magnetization Effects 2
MA 26.1–26.4	Wed	15:00–16:00	H48	Molecular Magnetism
MA 27.1–27.13	Thu	9:30–12:45	H37	Skyrmions 2 (joint session MA/KFM)
MA 28.1–28.13	Thu	9:30–12:45	H43	Magnonics 2
MA 29.1–29.9	Thu	9:30–11:45	H47	Caloric Effects in Magnetic Materials
MA 30.1–30.8	Thu	9:30–11:30	H48	Surface Magnetism
MA 31.1–31.10	Thu	15:00–17:45	H37	Topological Insulators (joint session MA/KFM)
MA 32.1–32.8	Thu	15:00–17:00	H43	Bulk Materials: Soft and Hard Permanent Magnets
MA 33.1–33.7	Thu	15:00–16:45	H47	Multiferroics and Magnetoelectric Coupling (joint session MA/KFM)
MA 34.1–34.7	Thu	15:00–16:45	H48	Functional Antiferromagnetism
MA 35.1–35.76	Thu	16:00–18:00	P4	Poster 2
MA 36	Thu	18:00–19:00	H37	Members’ Assembly
MA 37.1–37.13	Fri	9:30–12:45	H37	Skyrmions 3 (joint session MA/KFM)
MA 38.1–38.7	Fri	9:30–11:15	H43	Electron Theory of Magnetism and Correlations
MA 39.1–39.6	Fri	9:30–11:00	H47	Magnetic Particles / Clusters
MA 40.1–40.5	Fri	9:30–10:45	H48	Weyl Semimetals
MA 41.1–41.5	Fri	11:30–12:45	H47	Micro- and Nanostructured Magnetic Materials
MA 42.1–42.5	Fri	11:30–12:45	H48	Magnetic Heuslers

Members’ Assembly of the Magnetism Division

Thursday 18:00–19:00 H37