

Functional Materials Division Fachverband Funktionsmaterialien (FM)

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Overview of Invited Talks and Sessions

(Lecture halls BEY/0138 and BEY/0E40; Poster P4)

Invited Talks

FM 4.1	Mon	15:00–15:30	BEY/0138	(Anti)Ferroelectric HfZrO₂: from non volatile memory to energy storage applications — ●BERTRAND VILQUIN, GREGOIRE MAGAGNIN, JORDAN BOUAZIZ, MARTINE LE BERRE, SARA GONZALEZ, INGRID CANERO INFANTE, BRICE GAUTIER, KEVIN ALHADA-LAHBAB, DAMIEN DELERUYELLE
FM 6.1	Tue	9:30–10:00	BEY/0138	Robust Data Generation, Heuristics and Machine Learning for Materials Design — ●JANINE GEORGE
FM 9.1	Tue	14:00–14:30	BEY/0138	Thin film combinatorial studies of functional magnetic materials — ●NORA DEMPSEY
FM 12.1	Wed	9:30–10:00	BEY/0138	Shedding Light on Polar Topological Textures — ●SALIA CHERIFI-HERTEL
FM 17.1	Thu	9:30–10:00	BEY/0138	Piled higher, probed deeper: X-ray insights into ferroelectric devices — ●MARTINA MÜLLER
FM 18.1	Thu	10:15–10:45	BEY/0138	Stabilizing antiferroelectricity in PbZrO₃ thin films using epitaxial tensile strain — ●VINCENT GARCIA
FM 18.2	Thu	10:45–11:15	BEY/0138	Strain effects in free-standing membranes of antiferroelectric Lead Zirconate — ●UMAIR SAEED, HUAZHANG ZHANG, DAVID PESQUERA, PHILIPPE GHOSEZ, NINI PRYDS, JOSE SANTISO, FELIP SANDIUMENGE, GUSTAU CATALAN
FM 22.1	Fri	9:30–10:00	BEY/0138	Topological thermoelectrics for solid state cooling — ●YU PAN, CLAUDIA FELSER
FM 23.1	Fri	9:30–10:00	BEY/0E40	Mapping topological textures in compensated magnets with X-rays — ●CLAIRE DONNELLY

Invited Talks of the joint Symposium SKM Dissertation Prize 2026 (SYSD)

See SYSD for the full program of the symposium.

SYSD 1.1	Mon	9:30–10:00	HSZ/0002	Stochastic-Calculus Approach to Non-equilibrium Statistical Physics — ●CAI DIEBALL
SYSD 1.2	Mon	10:00–10:30	HSZ/0002	Nonuniform magnetic spin textures for sensing, storage and computing applications — ●SABRI KORALTAN
SYSD 1.3	Mon	10:30–11:00	HSZ/0002	Anomalous Quantum Oscillations beyond Onsager's Fermi Surface Paradigm — ●VALENTIN LEEB
SYSD 1.4	Mon	11:00–11:30	HSZ/0002	Coherent Control Schemes for Semiconductor Quantum Systems — ●EVA SCHÖLL
SYSD 1.5	Mon	11:30–12:00	HSZ/0002	On stochastic thermodynamics under incomplete information: Thermodynamic inference from Markovian events — ●JANN VAN DER MEER

Invited Talks of the joint Symposium Beyond Transistors: Material-Based Edge Computing Paradigms (SYBT)

See SYBT for the full program of the symposium.

SYBT 1.1	Wed	9:30–10:00	HSZ/AUDI	Finding Neuromorphic Advantage with Magnetism — •JOHAN MENTINK
SYBT 1.2	Wed	10:00–10:30	HSZ/AUDI	Accelerating Neural Networks Computation with Ferroelectric Oxides — •LAURA BÉGON-LOURS, NIKHIL GARG, ALEXANDRE BAIGOL, ANWESHA PANDA, NATHAN SAVOIA, ALEXANDER FLASBY
SYBT 1.3	Wed	10:30–11:00	HSZ/AUDI	a photonic approach to probabilistic computing — •WOLFRAM PERNICE
SYBT 1.4	Wed	11:15–11:45	HSZ/AUDI	Tackling Reliability and Scalability in Neuromorphic Computing via Noise-aware Learning — •ELENI VASILAKI
SYBT 1.5	Wed	11:45–12:15	HSZ/AUDI	Bayesian nanodevices for trustworthy artificial intelligence — •DAMIEN QUERLIOZ

Sessions

FM 1.1–1.5	Sun	16:00–18:15	HSZ/0002	Hands-on Tutorial: HyperSpy – Multidimensional data analysis using Python (joint session FM/TUT)
FM 2.1–2.7	Mon	9:30–11:30	BEY/0138	Energy Materials
FM 3.1–3.6	Mon	9:30–12:00	POT/0151	Focus Session: Novel mechanisms of ferroic switching (joint session MA/FM)
FM 4.1–4.9	Mon	15:00–17:45	BEY/0138	Focus Session: (Anti)ferroic states – Non-conventional states I
FM 5.1–5.11	Mon	15:00–18:00	BEY/0E40	Focus Session: Holistic structural and safety assessment of battery materials and cells
FM 6.1–6.11	Tue	9:30–12:45	BEY/0138	Focus Session: Materials Discovery I – Material informatics
FM 7.1–7.8	Tue	9:30–11:45	BEY/0E40	Crystal Defects and Real Structure Physics in Diamond and Functional Materials I
FM 8.1–8.11	Tue	9:30–12:30	POT/0112	Multiferroics and Magnetoelectric Coupling (joint session MA/FM)
FM 9.1–9.5	Tue	14:00–15:30	BEY/0138	Focus Session: Materials Discovery II – High throughput searches for functional magnetic materials (joint session FM/MA)
FM 10.1–10.5	Tue	14:00–15:30	BEY/0E40	Crystal Defects and Real Structure Physics in Diamond and Functional Materials II
FM 11.1–11.38	Tue	18:00–20:30	P4	Poster Session Functional Materials
FM 12.1–12.11	Wed	9:30–13:00	BEY/0138	German-French Focus Session: Materials Research in Polar Oxides – From Domain Engineering to Photonic and Electronic Devices I
FM 13.1–13.5	Wed	10:15–11:30	SCH/A251	Topical Session: Dislocations in Functional Materials I (joint session MM/FM)
FM 14.1–14.4	Wed	15:00–16:00	BEY/0138	Focus Session: Materials Research in Polar Oxides – From Domain Engineering to Photonic and Electronic Devices II
FM 15.1–15.3	Wed	15:00–15:45	BEY/0E40	Nanoscale Probing of Functional Properties
FM 16.1–16.5	Wed	15:45–17:15	SCH/A251	Topical Session: Dislocations in Functional Materials II (joint session MM/FM)
FM 17.1–17.1	Thu	9:30–10:00	BEY/0138	Highlighted Talk: Piled higher, probed deeper: X-ray insights into ferroelectric devices (Martina Müller)
FM 18.1–18.8	Thu	10:15–12:45	BEY/0138	German-French Focus Session: (Anti)ferroic states – ferroelectrics, ferroelastics and antiferroelectrics II
FM 19.1–19.9	Thu	10:15–12:45	BEY/0E40	Advanced Microscopy and Tomography for Functional Materials
FM 20	Thu	13:30–17:00	Infineon	Excursion and Network-Event at Infineon Dresden AG (joint session FM/HL)
FM 21	Thu	18:00–18:45	BEY/0138	Members Assembly
FM 22.1–22.11	Fri	9:30–12:45	BEY/0138	Focus Session: Materials Discovery III – New materials and functionalities by general principles
FM 23.1–23.6	Fri	9:30–11:30	BEY/0E40	Focus Session: (Anti)ferroic states – Magnetic and magnetoelectric III (joint session FM/MA)

Members' Assembly of the Functional Materials Division

Thursday 18:00–18:45 BEY/0138