Crystalline Solids and their Microstructure Division
Fachverband Kristalline Festkörper und deren Mikrostruktur (KFM)

Anna Grünebohm
Experimental Physics 5
Ruhr-Universität Bochum
Universitätsstraße 150
44801 Bochum
anna.gruenebohm@rub.de

Overview of Invited Talks and Sessions

(Lecture halls E 124, EMH 025, and EMH 225; Poster E)

Invited Talks

KFM 10.1	Tue	9:30–10:00	E 124	**Exploring of the accumulation and thermal annealing of radiation defects in metal oxides via optical absorption, EPR and luminescence methods** — •Aleksandr Lushchik
KFM 11.5	Tue	11:10–11:40	EMH 225	**Optical Formation and Manipulation of Topological Polar Supertextures** — •John Freeland
KFM 17.1	Wed	15:00–15:30	EMH 225	**Reversible and irreversible heat effects in batteries and battery materials** — •Andreas Jossen
KFM 23.1	Thu	9:30–10:00	E 124	**The Research Center FLAIR: Fermi Level Engineering of Oxide Electroceramics** — •Andreas Klein
KFM 23.6	Thu	11:20–11:50	E 124	**Designing Transition Metal Oxynitrides for Photoelectrochemical Applications** — •Verena Streibel, Laura I. Wagner, Johanna L. Schönecker, Elise Sirotti, Johanna Eichhorn, Saswati Santra, Ian D. Sharp
KFM 24.1	Thu	9:30–10:00	EMH 225	**Ion transport in battery electrolytes and related interphases** — •Jelena Popovic-Neuber
KFM 28.1	Thu	15:00–15:30	EMH 225	**Every (ferroelectric) wall is a door - exploring the links between structure, dynamics, and emergent functionalities** — •Patrycja Paruch

Invited Talks of the joint Symposium Three-Dimensional Nanostructures: From Magnetism to Superconductivity (SYMS)

See SYMS for the full program of the symposium.

SYMS 1.1	Mon	9:30–10:00	H 0105	**3D Racetrack Memory** — •Stuart Parkin
SYMS 1.2	Mon	10:00–10:30	H 0105	**Curved electronics: geometry-induced effects at the nanoscale** — •Paola Gentile
SYMS 1.3	Mon	10:30–11:00	H 0105	**Curvilinear micromagnetism** — •Denys Makarov
SYMS 1.4	Mon	11:15–11:45	H 0105	**Study of 3D superconducting nanoarchitectures** — •Rosa Córdoba
SYMS 1.5	Mon	11:45–12:15	H 0105	**3D nanoarchitectures for superconductivity and magnonics** — •Oleksandr Dobrovolskiy

Invited Talks of the joint Symposium SKM Dissertation Prize 2024 (SYSD)

See SYSD for the full program of the symposium.

SYSD 1.1	Mon	9:30–10:00	H 1012	**Nonequilibrium dynamics in constrained quantum many-body systems** — •Johannes Feldmeier
SYSD 1.2	Mon	10:00–10:30	H 1012	**Controlled Manipulation of Magnetic Skyrmions: Generation, Motion and Dynamics** — •Lisa-Marie Kern
SYSD 1.3	Mon	10:30–11:00	H 1012	**Interactions within and between cytoskeletal filaments** — •Charlotta Lorenz

SYSD 1.4	Mon	11:00–11:30	H 1012	**Field theories in nonequilibrium statistical mechanics: from molecules to galaxies** — •Michael te Vrugt
SYSD 1.5	Mon	11:30–12:00	H 1012	**Lightwave control of electrons in graphene** — •Tobias Weitz

Invited Talks of the joint Symposium Synergistic Imaging Techniques: From Spins and Atoms to Ferroic Domains (SYSA)

See SYSA for the full program of the symposium.

SYSA 1.1	Mon	15:00–15:30	H 0105	**Imaging with coherent soft X-rays** — •Bastian Pfau
SYSA 1.2	Mon	15:30–16:00	H 0105	**Exploring ferroelectric domains and domain wall dynamics with quantitative STEM** — •Marta D. Rossell
SYSA 1.3	Mon	16:00–16:30	H 0105	**Scanning Oscillator Piezoresponse Microscopy: new tools to explore domain wall dynamics** — •Neus Domingo, Shiva Raghuraman, Ralph Bulanadi, Patrycja Paruch, Stephen Jesse
SYSA 1.4	Mon	16:45–17:15	H 0105	**Imaging probe nuclei environments using perturbed angular correlation spectroscopy: Examples from multiferroic $BiFeO_3$** — •Doru C. Lupascu, Thien Thanh Dang, Georg Marschick, Marianela Escobar, Astita Dubey, Ian Yap Chang Jie, Juliana Heiniger-Schell
SYSA 1.5	Mon	17:15–17:45	H 0105	**Exploring antiferromagnetic order at the nanoscale with a single spin microscope** — •Vincent Jacques, Aurore Finco

Invited Talks of the joint Symposium Advances in Ab-Initio Electronic Structure Theory of Time-Dependent and Non-Equilibrium Phenomena (SYES)

See SYES for the full program of the symposium.

SYES 1.1	Tue	9:30–10:00	H 0105	**Light control of charge transport and phase transitions** — •Sheng Meng
SYES 1.2	Tue	10:00–10:30	H 0105	**Probing the transport of the interacting electron-phonon system self-consistently and *ab initio*** — •Nakib Protik
SYES 1.3	Tue	10:30–11:00	H 0105	**In- and out-of-equilibrium ab initio theory of electrons and phonons** — •Gianluca Stefanucci
SYES 1.4	Tue	11:15–11:45	H 0105	**Phonon screening of excitons in semiconductors and insulators from first principles** — •Marina Rucsandra Filip
SYES 1.5	Tue	11:45–12:15	H 0105	**Light-matter control of quantum materials: from Floquet to cavity engineering** — •Michael Sentef

Sessions

KFM 1.1–1.4	Sun	16:00–18:15	H 1028	**Tutorial: Exploring Ferroic Materials: From Modelling to Imaging Techniques (joint session KFM/TUT)**
KFM 2.1–2.3	Mon	9:30–10:30	EMH 025	**High-resolution Lithography and 3D Patterning**
KFM 3.1–3.6	Mon	9:30–11:30	EMH 225	**Focus Session: (Multi-)Ferroic States I**
KFM 4.1–4.12	Mon	9:30–13:00	EW 203	**Perovskite and photovoltaics I (joint session HL/KFM)**
KFM 5.1–5.8	Mon	9:30–11:45	A 053	**Thin oxides and oxide layers (joint session DS/KFM)**
KFM 6.1–6.4	Mon	10:40–12:00	EMH 025	**Instrumentation and Methods for Micro- and Nanoanalysis**
KFM 7.1–7.5	Mon	11:45–13:00	C 264	**Materials for the Storage and Conversion of Energy (joint session MM/KFM)**
KFM 8.1–8.3	Mon	12:10–13:10	EMH 025	**Microscopy and Tomography with X-ray Photons, Electrons, Ions and Positrons**
KFM 9.1–9.40	Mon	18:00–20:00	Poster E	**KFM Poster Session**
KFM 10.1–10.6	Tue	9:30–12:00	E 124	**Diamond and Related Dielectric Materials I**
KFM 11.1–11.7	Tue	9:30–12:20	EMH 225	**Focus Session: (Multi-)Ferroic States II**
KFM 12.1–12.6	Wed	9:30–11:50	EMH 025	**Diamond and Related Dielectric Materials II**
KFM 13.1–13.8	Wed	9:30–12:30	EMH 225	**Focus Session: (Multi-)Ferroic States III**
KFM 14.1–14.5	Wed	11:45–13:00	C 230	**Mechanical Properties and Alloy Design: e.g. Light-Weight, High-Temperature, Multicomponent Materials (joint session MM/KFM)**

KFM 15.1–15.11	Wed	15:00–18:00	EB 407	**Multiferroics and Magnetoelectric Coupling (joint session MA/KFM)**
KFM 16.1–16.6	Wed	15:00–17:10	E 124	**Crystal Structure Defects / Real Structure / Microstructure I**
KFM 17.1–17.11	Wed	15:00–19:05	EMH 225	**Focus Session: Battery Materials – Experimental Characterisation and Safety Testing (joint session KFM/MM)**
KFM 18.1–18.7	Wed	15:00–18:00	Poster E	**$SrTiO_3$: A Versatile Material from Bulk Quantum Paraelectric to 2D Superconductor: Poster (joint session TT/KFM/MA/O)**
KFM 19.1–19.8	Wed	15:30–18:00	C 130	**Topical Session: In Situ and Multimodal Microscopy in Materials Physics (joint session MM/KFM)**
KFM 20.1–20.3	Wed	17:15–18:00	C 230	**Structurally and Chemically Complex Alloys (joint session MM/KFM)**
KFM 21.1–21.7	Thu	9:30–12:45	H 0104	**Focus Session: $SrTiO_3$: A Versatile Material from Bulk Quantum Paraelectric to 2D Superconductor (joint session TT/KFM/MA/O)**
KFM 22.1–22.14	Thu	9:30–13:15	EW 203	**Perovskite and Photovoltaics II (joint session HL/KFM)**
KFM 23.1–23.6	Thu	9:30–11:50	E 124	**Focus Session: Fermi level engineering of functional ceramics**
KFM 24.1–24.11	Thu	9:30–13:35	EMH 225	**Focus Session: Battery Materials – Ion Transport, Impurity Effects and Modelling (joint session KFM/MM)**
KFM 25.1–25.5	Thu	11:45–13:00	C 264	**Materials for Storage and Conversion of Energy (joint session MM/KFM)**
KFM 26.1–26.11	Thu	15:00–18:00	H 0104	**$SrTiO_3$: A Versatile Material from Bulk Quantum Paraelectric to 2D Superconductor II (joint session TT/KFM/MA/O)**
KFM 27.1–27.4	Thu	15:00–16:20	EMH 025	**Polar oxides: Lithium niobate and lithium tantalate**
KFM 28.1–28.7	Thu	15:00–17:45	EMH 225	**Focus Session: (Multi-)Ferroic States IV**
KFM 29	Thu	18:10–19:00	EMH 225	**Members' Assembly**
KFM 30.1–30.11	Fri	9:30–12:30	H 0104	**$SrTiO_3$: A Versatile Material from Bulk Quantum Paraelectric to 2D Superconductor III (joint session TT/KFM/MA/O)**
KFM 31.1–31.13	Fri	9:30–13:00	EW 203	**Perovskite and Photovoltaics III (joint session HL/KFM)**
KFM 32.1–32.6	Fri	9:30–11:40	E 124	**Crystal Structure Defects / Real Structure / Microstructure II**
KFM 33.1–33.8	Fri	9:30–12:25	EMH 225	**Focus Session: (Multi-)Ferroic States V**

Members' Assembly of the Crystalline Solids and their Microstructure Division

Thursday 18:10–19:00 EMH 225