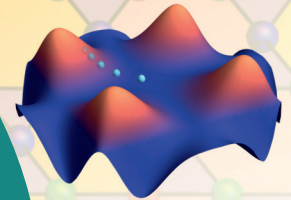
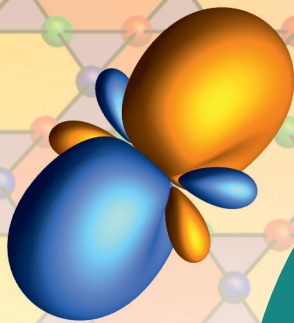




MAX PLANCK INSTITUTE FOR
SOLID STATE RESEARCH



Japanese German Symposium on Geometry and Topology of Quantum Materials



Join us for an engaging one-day workshop which delves into the recent developments in the fields of quantum geometry, topology, and correlations in quantum materials. Over the last few years, the geometry and topology of quantum materials has received increasing attention, as these are intimately connected to various response functions, including linear and non-linear Hall transport, optical conductivities, higher-harmonic generation, and photovoltaic effects. In correlated materials, quantum geometry can guarantee finite superfluidity and stabilize fractional topological phases.

In this meeting we discuss these topics both from a mathematical and a materials driven point of view, in the context of topological semimetals, magnets, and superconductors. This workshop aims to bring together established and young researchers from Japan and Germany, to facilitate engaging discussions and networking opportunities, fostering new interdisciplinary collaborations.

Registration
until September 28, 2025



Invited Speakers

Johannes Mitscherling

MPI for the Physics of Complex Systems, Dresden

Rina Tazai

Yukawa Institute for Theoretical Physics, Kyoto University

Takahiro Morimoto

University of Tokyo

Alexander Mook

Johannes Gutenberg University Mainz

Ken Shiozaki

Yukawa Institute for Theoretical Physics, Kyoto University

Kukka-Emilia Huhtinen

ETH Zurich

Masatoshi Sato

Yukawa Institute for Theoretical Physics, Kyoto University

October 8, 2025

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Heisenbergstr. 1, 70569 Stuttgart

Lecture Hall Copper, 2R4

Organization Team:

Department Quantum Many-Body Theory
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