SPIN PHENOMENA
INTERDISCIPLINARY CENTER

JOHANNES GUTENBERG UNIVERSITÄT MAINZ

JGU

**JOHANNES GUTENBERG-UNIVERSITÄT MAINZ** - 55099 Mainz

## Position in Computational topological spintronics
## Johannes Gutenberg-Universität Mainz, Germany

We are pleased to announce the opening of PostDoc or PhD position in computational solid-state physics in the Institute of Physics at the Johannes Gutenberg-Universität Mainz **working on aspects of ab initio calculations of topological magnets**. The appointment involves research under supervision of **Jairo Sinova** and **Libor Šmejkal**, and in direct collaboration with the experimental and theoretical research partners in Mainz and with the partners in Goethe University Frankfurt and Technical University of Kaiserslautern. The Sinova Group conducts research in a broad range of topics related to spin phenomena and theoretical condensed matter physics. Furthermore, the position incorporates the opportunity within SPICE, the Spin Phenomena Interdisciplinary Center, and two SFB centers (SFB Spin+X, SFB ElastoQmat) to lead interdisciplinary research. The PostDoc position is initially open for two years with a possible elongation up to 3 years, the PhD position is open for 3 years.

A strong background in ab initio computational techniques and calculations at large-computing-infrastructures is required. Candidates interested and/or experienced in ab initio calculations of electronic structure, topological invariants, and spin transport coefficients and with experience with maintaining supercomputing facilities are highly suited for this opportunity. Further information can be found on the websites http://www.sinova-group.physik.uni-mainz.de/, http://www.spice.uni-mainz.de/, https://transregio288.org/, and https://www.uni-kl.de/trr173 . The prospective group member must hold a MSc (for a PhD position) or PhD degree (for a postdoc position). An experience with VASP package, Wannier90 package, WannierTools package and similar, bash/python scripting, python scientific libraries, code-parallelization, machine learning, and/or knowledge of topological insulators and semimetals, and spintronics is an advantage.

Johannes Gutenberg-Universität Mainz is an equal opportunity, affirmative action employer in compliance with German disability laws. Women and persons with disabilities are encouraged to apply.

Review of applications begins immediately and will continue until the position is filled. Interested applicants should send a curriculum vitae, a list of publications, and at least two letters of recommendation to sinova-group@uni-mainz.de. When sending applications please use the subject line “Computational position application”.

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