

PhD Positions in Topological Strongly Correlated Magnetic Systems Johannes Gutenberg-Universität Mainz, Germany

We are pleased to announce the opening of two PhD positions in computational solid-state physics in the Institute of Physics at the Johannes Gutenberg-Universität Mainz **working on aspects of topological strongly correlated materials controlled by strain (computational and phenomenological)** supported by the newly funded SFB ElastoQmat. The appointment involves research under supervision of **Jairo Sinova**, **Olena Gomonay**, and **Libor Šmejkal**, and in direct collaboration with the experimental and theoretical research partners in Mainz and with the partners in Goethe University Frankfurt (**Roser Valenti**) and Karlsruhe Institute of Technology. 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, to lead interdisciplinary research.

A background in computational techniques and/or phenomenology techniques in condensed matter and materials theory is required. Candidates interested and/or experienced in phenomenological/symmetry analysis of topological transport, ab-initio/electronic structure calculations, code-development, calculations at large-computing-infrastructures and/or spin-transport physics are highly suited for this opportunity. Further information can be found on the websites <https://transregio288.org/>, <http://www.sinova-group.physik.uni-mainz.de/> and <http://www.spice.uni-mainz.de/>. The prospective group member must hold a MSc or equivalent diploma or PhD degree for the postdoc position. An experience with VASP package, Wannier90 package, python scientific libraries, code-parallelization, micromagnetics, artificial intelligence algorithms and knowledge of topological insulators 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 "ElastoQmat PhD position application".

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