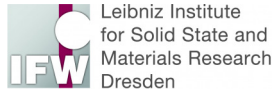


Leibniz-Institut für Festkörper- und Werkstofforschung Dresden (IFW Dresden e.V.)



The Leibniz Institute for Solid State and Materials Research Dresden e. V. (IFW Dresden) conducts modern materials research on a scientific basis for the development of new and sustainable materials and technologies. The institute employs an average of 500 people from over 40 nations and, in addition to its scientific tasks, is dedicated to promoting young scientists and engineers. Further information at: <http://www.ifw-dresden.de>

Postdoc position (m/f/d) for research in non-equilibrium condensed matter physics 014-25-5100

City: Dresden; Starting date (earliest): At the earliest possible; Remuneration: TV-L;
Reference number: 014-25-5100

Working field

The successful candidate (m/f/d) will conduct theoretical studies of phononic/photonic control of out-of-equilibrium magnetic dynamics in quantum materials, exploiting interdisciplinary approaches in quantum transport, nonequilibrium quantum dynamics, and quantum optics. The research aims to develop new theoretical frameworks to explore dynamical phenomena in magnetic quantum materials driven out of equilibrium. The key mechanisms of interest include elastic excitations and light-matter interactions. The studies aim to explain and predict exotic transport properties and pump-probe experiments, and offer insights for the phononic/photonic control of quantum materials to enable the design of innovative quantum devices with spintronic and quantum-information functionalities. Opportunities will be available for international collaborations and supervising Ph.D. students.

Requirements

We are seeking highly-motivated postdoctoral scholars (m/f/d) to join our team in advancing the frontiers of non-equilibrium condensed matter physics.

The candidate (m/f/d) must hold a Ph.D. in Theoretical Condensed Matter Physics, knowledge of solid-state physics, statistical physics and advanced quantum mechanics. In addition, research experience in one or more of the following topics is highly preferable: quantum magnetism, magnetic van der Waals materials, spintronics, driven-dissipative dynamics, and light-matter interactions. Strong theoretical knowledge/programming skills (e.g.: Keldysh path integral, quantum transport theories, molecular dynamics simulation, exact diagonalization and (time-dependent) DMRG) and working proficiency in spoken and written English are required.

What we offer

- employment in accordance with the collective agreement for the public service of the federal states (TV-L)
- A modern, well-equipped workplace on the campus of the Technische Universität Dresden
- Flexible, family-friendly working hours
- 30 days vacation per year
- Company pension scheme (VBL)
- Benefits for job ticket/Germany ticket
- Special annual payment
- Capital-forming benefits
- Cooperation agreements with daycare centers to help with childcare shortages,
- Company health management (back training, health day with various offers),
- discounted sports offers from the Dresden University Sports Center,
- job-related further training opportunities and language courses,
- Company restaurant with a variety of breakfast and lunch dishes.

You can expect an interesting, independent and challenging job in a research institute with international colleagues and a good working atmosphere. The contract is fulltime (part-time is also possible) and initially limited to 2 years with a possibility for extension depending on the funding.

Application

IFW Dresden strives for a balanced gender ratio in all areas. In science, IFW Dresden would like to increase the proportion of women and therefore explicitly invites suitably qualified female scientists to apply. The application of severely disabled persons is explicitly welcome.

Please send your application with CV, letter of motivation describing your scientific career, skills and experience, as well as copies of all certificates, and the contact information of at least two references to inquire for reference letters, citing the reference number 014-25-5100 no later than March 15, 2025 as one pdf file to:

bewerbung@ifw-dresden.de.

For more information please contact Dr. Shu Zhang (s.zhang@ifw-dresden.de).

More information at <https://stellenticket.de/192103/LUH/>

Offer visible until 15/03/25

