Technische Universität Dresden

TUD Dresden University of Technology, as a University of Excellence, is one of the leading and most dynamic research institutions in the country. Founded in 1828, today it is a globally oriented, regionally anchored top university as it focuses on the grand challenges of the 21st century. It develops innovative solutions for the world's most pressing issues. In research and academic programs, the university unites the natural and engineering sciences with the humanities, social sciences and medicine. This wide range of disciplines is a special feature, facilitating interdisciplinarity and transfer of science to society. As a modern employer, it offers attractive working conditions to all employees in teaching, research, technology and administration. The goal is to promote and develop their individual abilities while empowering everyone to reach their full potential. TUD embodies a university culture that is characterized by cosmopolitanism, mutual appreciation, thriving innovation and active participation. For TUD diversity is an essential feature and a quality criterion of an excellent university. Accordingly, we welcome all applicants who would like to commit themselves, their achievements and productivity to the success of the whole institution.

At the **Faculty Physics, Institute of Solid State and Materials Physics,** the **Chair of Physics of Quantum Materials** offers a position as

Research Associate / PhD Student (m/f/x)

(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

starting at the **earliest possible date.** The position is limited to three years, with the possibility of extension and entails 75% of the full-time weekly hours. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz - WissZeitVG). The position offers the chance to obtain further academic qualification (usually PhD).

Tasks: The Chair of "Physics of Quantum Materials" (https://tu-dresden.de/mn/physik/ifmp/pdqm) is seeking a motivated researcher to explore the **elastic tuning of collective states in Kagome quantum materials**. The successful candidate will employ high-resolution X-ray diffraction in combination with electrical resistivity measurements to identify and characterize these states, with experiments performed as a function of temperature and uniaxial stress. Density Functional Theory (DFT) calculations can complement the experimental work.

You will have access to unique experimental facilities and work within the Cluster of Excellence "Complexity, Topology and Dynamics in Quantum Matter" (ctd.qmat), a collaborative research hub jointly run by TU Dresden and the University of Würzburg. We are looking for a researcher who enjoys teamwork, creative problem solving, and pushing the boundaries of experimental solid-state physics.

Requirements:

- a very good university degree in physics (Master or Diploma)
- a strong interest in quantum materials research
- a solid foundation in condensed matter physics
- hands-on experience in the relevant experimental methodology
- fluency in English
- The ideal candidate is creative, self-driven, and motivated to carry out practical experimental work, while also being eager to integrate into the existing team and take on responsibility.

We offer:

- intensive mentoring in an attractive scientific environment combined with an excellent infrastructure
- the project promotes collaboration in an established, interdisciplinary team of experimental physicists and theorists
- various opportunities for collaboration with other working groups
- 30 days of vacation per year (based on a 5-day workweek)
- flexible working hours and mobile working within the framework of the TUD's service agreements
- annual bonus payment
- Job ticket/Deutschlandticket

- health care and sports facilities at the TUD
- a family-friendly working environment in a city of science and culture surrounded by unique countryside.

TUD strives to employ more women in academia and research. We therefore expressly encourage women to apply. The University is a family-friendly university. We welcome applications from candidates with disabilities. If multiple candidates prove to be equally qualified, those with disabilities or with equivalent status pursuant to the German Social Code IX (SGB IX) will receive priority for employment.

Application: Please submit your detailed application with the usual documents quoting the reference number **w26-098** by **May 15, 2026** (stamped arrival date of the university central mail service or the time stamp on the email server of TUD applies), preferably via the TUD SecureMail Portal https://securemail.tu-dresden.de by sending it as a single pdf file to **pdqm@mailbox.tu-dresden.de** or to:

TU Dresden, Institute of Solid State and Materials Physics, Prof. Dr. Jochen Geck, Helmholtzstr. 10, 01069 Dresden, Germany.

Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

ctd.qmat
Complexity, Topology and Dynamics in Quantum Matter

TUD is a founding partner in the DRESDEN-concept alliance.

DRESDEN concept

Reference to data protection: Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website: https://tu-dresden.de/karriere/datenschutzhinweis.