Dresden University of Technology

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 of Physics**, the **Institute of Solid State and Materials Physics** invites applications for the **Cluster of Excellence Complexity, Topology and Dynamics in Quantum Matter (*ctd.qmat)*** for the

Chair (W2) of Low-Temperature Physics of Topological Quantum Materials and Devices

is to be filled at the **earliest possible date**.

Key Duties and Academic Responsibilities

The chair will comprehensively represent the field of "Experimental Condensed Matter Physics" in research and teaching. The research should focus on the field of low-temperature physics of novel topological and correlated materials either as bulk systems or functional devices. The latter could be in form of thin films, hybrid or hetero-structures, lateral nanostructures/-membranes, 2D materials, or cavity quantum materials.

The chair is embedded into the Cluster of Excellence ctd.qmat, in which phenomena, materials, and applications of topological physics are studied. It will actively contribute to strengthening this modern research area with a long-term perspective, e.g. via the investigation of bulk materials at low temperatures and in high magnetic fields by means of transport measurements or local probes, or the development, design and characterization of quantum- or topological devices.

In addition to active research within ctd.qmat, the participation in other collaborative research activities is explicitly desired. The chair is also actively involved in teaching duties at the Faculty of Physics and in academic self-administration.

Requirements & Candidate Profile

We are looking for a personality (m/f/x) with proven expertise in the field of low-temperature physics of novel topological and correlated materials, including their investigation as bulk materials or their application in functional components. We expect you to be familiar with acquiring third-party funding and to be experienced in project and group management. We place special emphasis on top-class publications, strong international contacts, as well as independently acquired and ideally successfully conducted research projects. We explicitly also encourage applications with excellent research programs from early career researchers that just started an independent group or project lead.

You inspire our students with your high level of motivation and have proven teaching skills, demonstrated by extensive experience in independently conducting bilingual courses (German and English).

Your participation in academic self-administration is a given. Your independent, reflective way of working, strategic thinking, sense of responsibility, and motivational leadership of interdisciplinary, diverse teams round off your profile. Immediate proficiency in German is not a prerequisite, but we expect you to acquire sufficient language skills within a reasonable period of time to conduct teaching and administrative tasks in German. To be eligible for the position, you need to have a doctorate in

physics or a related discipline as well as a habilitation or habilitation-equivalent achievements in research and teaching.

In all other respects, the requirements for appointment, official duties and administrative status are governed by §§ 59, 69, 71 of the Act on Higher Education Institutions in the Free State of Saxony (SächsHSG) and the Regulations on Duties and Responsibilities of Institutes of Higher Education (HSDAVO).

For further questions, please contact the chairman of the appointment committee, Prof. Dr. Stefan Kaiser, phone +49 351 463-36050; email: stefan.kaiser@tu-dresden.de.

TUD strives to employ more women in academia and research. We therefore expressly encourage women to apply. The University is a family-friendly university and offers a Dual Career Service. 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. If you have any questions about these or related topics, please contact the team of the Equal Opportunities Officer of the Faculty of Physics (Magdalena Micoloi, phone +49 351 463-37807) or the Representative of Employees with Disabilities (Mr. Roberto Lemmrich, phone +49 351 463-33175, schwerbehindertenvertretung@tu-dresden.de).

How to Apply

We look forward to receiving your application by **May 28, 2026** (time stamp on the email server or the stamped arrival date of the University Central Mail Service of TUD applies).

Please include the following documents with your application letter:

- curriculum vitae in table form, a synopsis of your academic career
- a list of academic publications and overview of research projects with details of third-party funding acquired
- a list of courses, results of teaching evaluations covering the last three years
- a research and teaching concept and
- copies of all academic certificates.

We kindly ask you to submit your application by email. Please use the SecureMail Portal of TUD (https://securemail.tu-dresden.de) and send your documents in a single PDF document to: **dekanat.physik@tu-dresden.de**. If you are applying by regular mail, please also attach your application documents in electronic form (CD or USB thumb drive) and send them to:

TU Dresden, Fakultät Physik, Dekanin, Frau Prof. Dr. Gesche Pospiech, Helmholtzstr. 10, 01069 Dresden, Germany.

About ctd.qmat

The Cluster of Excellence ctd.qmat – Complexity, Topology and Dynamics in Quantum Matter — at Julius-Maximilians-Universität Würzburg and Technische Universität Dresden explores and develops novel quantum materials with tailored properties. Around 300 researchers from over 30 countries work at the interface of physics, chemistry, and materials science to lay the foundations for tomorrow's technologies. In 2026, the cluster entered the second funding period of the German Excellence Strategy of the Federal and State Governments — with an expanded focus on the dynamics of quantum processes.

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.