



Technische Universität Berlin



Technische Universität Berlin offers an open position:

2 positions - Research Assistant - 0.75 working time - salary grade 13 TV-L Berliner Hochschulen

starting at 01/04/25 or later for 36 months

Faculty II - Institute of Theoretical Physics / Theory of controlled quantum many-body systems

Reference number: II-20/25 (starting at 01/04/25 / limited for 36 months / closing date for applications 28/02/25)

Working field:

Research on the topic of “Quantum control and simulation of topologically-ordered quantum matter” in the DFG-funded Emmy Noether Junior Research Group, which will be established on 01/04/2025 at the Institute of Theoretical Physics under the direction of Dr. Francesco Petiziol.

Research topics include:

- Study of topological quantum systems out of equilibrium (e.g., periodically-driven)
- Development of control protocols to prepare and manipulate topologically ordered states in quantum simulators
- Development of reservoir engineering techniques for many-body state preparation
- Design of autonomous topological quantum memories

There is the possibility of a doctorate.

For further information please contact Dr. Francesco Petiziol (f.petiziol@tu-berlin.de).

Requirements:

- Successfully completed university degree (Master, Diplom or equivalent) in physics or a related discipline (or completion by the start of the employment contract)
- Excellent knowledge in theoretical quantum physics; strong background in one or more fields related to the research topics, such as quantum many-body theory, quantum control, quantum simulation, synthetic quantum systems, open quantum systems
- Good knowledge of German and/or English required; willingness to acquire the respective missing language skills

Desirable:

- Experience in numerically simulating quantum systems
- High level of commitment and desire to lead a project

Please send your application **with the reference number** and the appropriate documents by email (in a single pdf file, max 5 MB) to andrea.schulze@tu-berlin.de.

By submitting your application via email you consent to having your data electronically processed and saved. Please note that we do not provide a guaranty for the protection of your personal data when submitted as unprotected file. Please find our data protection notice acc. DSGVO (General Data Protection Regulation) at the TU staff department homepage: https://www.abt2-t.tu-berlin.de/menue/themen_a_z/datenschutzerklaerung/.

To ensure equal opportunities between women and men, applications by women with the required qualifications are explicitly desired. Qualified individuals with disabilities will be favored. The TU Berlin values the diversity of its members and is committed to the goals of equal opportunities. Applications from people of all nationalities and with a migration background are very welcome.

Technische Universität Berlin - Die Präsidentin - Fakultät II, Institut für Theoretische Physik, Dr. Francesco Petiziol, Sekr. EW 7-1, Hardenbergstr. 36, 10623 Berlin

The vacancy is also available on the internet at <https://www.personalabteilung.tu-berlin.de/menue/jobs/>

