



2 doctoral students in computational quantum many-body physics (f/m/x)

Institute for Theoretical Physics

We are one of the largest and oldest universities in Europe and one of the most important employers in our region. Our broad range of subjects, the dynamic development of our main research areas and our central location in Cologne make us attractive for students and researchers from around the world. We offer a wide range of career opportunities in science, technology, and administration.

Our group conducts research in theoretical condensed matter physics, focussing on quantum materials and paradigmatic models of correlated electrons. We develop computational quantum many-body methods and dynamical mean-field theory extensions. We specialize in real-frequency implementations to explain spectroscopy and transport measurements.

YOUR TASKS

- » Explore quantum materials at the forefront of research in condensed matter physics
- » Develop and apply techniques of theoretical and computational physics
- » Present and disseminate research results at scientific conferences and in publications

YOUR PROFILE

- » M.Sc. degree in physics or a related discipline
- » Knowledge of relevant theoretical methods
- » Research experience relevant for the thesis project
- » Excellent command of English
- » High motivation, commitment good communication skills and team spirit are an asset

WE OFFER

- » An exciting research project at the cutting edge of research on quantum matter
- » Work in an international collaborative team
- » A diverse working environment with equal opportunities
- » Support in balancing work and family life
- » Flexible working time models
- » Extensive advanced training opportunities
- » Occupational health management offers

The University of Cologne promotes equal opportunities and diversity. Women will be considered preferentially in accordance with the Equal Opportunities Act of North Rhine-Westphalia (Landesgleichstellungsgesetz – LGG NRW). We also expressly welcome applications from all suitable candidates regardless of their gender, nationality, ethnic and social origin, religion, disability, age, sexual orientation and identity.

The positions are available as soon as possible on a part-time basis (50% in the first year, 75% afterwards). The contract is initially limited to three years. If the applicant meets the relevant wage requirements and personal qualifications, the salary will be based on remuneration group 13 TV-L of the pay scale for the German public sector.

Please apply online with proof of the required qualifications without a photo under: <https://jobportal.uni-koeln.de>. The reference number is Wiss2504-04.

The application deadline is 14 May 2025.

For further inquiries, please contact Junior Professor Fabian Kugler (jobopening-kugler@thp.uni-koeln.de) and take a look at our [FAQs](#).