



Technische Universität Berlin



Research Assistant - 0.75 working-time - salary grade E13 TV-L Berliner Hochschulen

There is the possibility of pursuing a doctorate.

Faculty II - Mathematics and Natural Sciences, Institute of Optics and Atomic Physics / Ultrafast Nanoscience

Reference number: II-420/25 (starting at the earliest possible / limited until 18/02/2029 / closing date for applications 15/11/25)

About us:

We are offering a position in experimental condensed matter physics focused on studying femtosecond dynamics of spins and of atoms in antiferromagnets. Antiferromagnets are promising candidate materials for next-generation spintronics, and the coupling between magnetic and atomic order may serve as a key ingredient in unlocking their potential.

The project will use several ultrafast experimental techniques, with the primary ones being femtosecond electron diffraction, carried out in our labs at the Fritz Haber Institute of the Max Planck Society (in Berlin-Dahlem), and ultrafast X-ray diffraction carried out at particle accelerator facilities such as BESSY II in Berlin-Adlershof. The project will be carried out in the team of Dr. William Windsor within the "Ultrafast Nanoscience" group of Prof. Ralph Ernstorfer. This highly diverse and international team employs ultrafast diffraction techniques to study a wide range of ultrafast phenomena in condensed matter systems.

Your responsibility:

Experimental work is done in a team environment. The applicant is then expected to pursue their research work independently.

- Conduct ultrafast experiments in the group's labs on a self-defined research topic
- Take part in the team's experiments (locally and in international facilities)
- Pursue independent research on acquired results: data analysis, interpretation, communication (e.g. publications), presentation (international conferences)

Your profile:

- Successfully completed university degree (Master, Diplom or equivalent) in physics or a very related field.
- Good knowledge of German and/or English required; willingness to acquire the missing language skills.
- Ability to work independently as well as in a team environment is desired
- Programming skills: Matlab, Python etc.

We are looking for highly motivated, curious, and enthusiastic, researchers with excellent academic records and strong interests in fundamental materials' physics, ultrafast science, and their potential intersection. BSc or MSc level research experience in one of the following fields is an advantage:

- Crystallography and diffraction methods (X-ray, electrons, or Neutrons)
- Femtosecond lasers or ultrafast science
- Magnetism
- Optical or THz research
- Phonon-related studies (e.g. Raman)

How to apply:

Interested candidates are requested to send a letter of motivation, a CV and a complete list of publications together with the contact details of two references to Dr. William Windsor (windsor@tu-berlin.de), quoting **the reference number** in the E-mail subject.

By submitting your application via email you consent to having your data electronically processed and saved. Please note that we do not provide a guarantee 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.

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

