



Berlin School of
Optical Sciences &
Quantum Technologies

The Berlin School of Optical Sciences and Quantum Technologies (BOS.QT) together with Technische Universität Berlin, Freie Universität Berlin and Humboldt-Universität zu Berlin offers the following open positions:

7 Positions – Research Assistants (d/m/w), 0.75 working time, salary grade E13 TV-L Berliner Hochschulen

1st qualification phase for doctorate subject to funding approval until December 31, 2026.

To be filled immediately/ Limited until December 31, 2026/ Application deadline: March 19, 2023.

If applying, please indicate the project to which your application relates. Applications for several projects are possible (up to three), whereby a prioritization (place 1, 2, etc.) must be indicated in the application documents for the desired project.

Project 8: Research assistant for Terahertz spin dynamics in novel quantum materials

Quantum materials have fascinating properties. In novel antiferromagnets, for example, one can rotate electron spins altogether by simply applying electric fields, instead of magnetic fields as in classical ferromagnets. Important applications include rapid magnetic-information writing for future data-processing solutions and detection of ultrashort electric-field pulses. The goal of this PhD project is to control and understand the dynamics of ordered electron spins in antiferromagnets. Because these dynamics are naturally ultrafast, you will make use of cutting-edge femtosecond laser technology and intense terahertz electromagnetic pulses. In this way, you will obtain new insights into spin interactions with electrons and the crystal lattice and explore relevant applications. Your work will take place in a dynamic international team with excellent supervision, lab instrumentation and worldwide collaborations.

Department: Department of Physics, Freie Universität Berlin

Working field: This work is located at the interface of the research fields of quantum matter, terahertz spintronics and femtosecond laser spectroscopy.

Requirements:

- Good English skills required; willingness to acquire the missing language skills
- Desired: Knowledge of solid-state physics, femtosecond lasers

For further inquiries and information please contact Tobias Kampfrath (tobias.kampfrath@fu-berlin.de, Phone: +49 30 838 63747).

Successful applicants* will have a graduate degree in physics or related areas (certificates of Master's, Diploma, or equivalent at the starting date) and previous experience in the above areas of work. Detailed project descriptions and requirements for each position can be found at: https://blogs.tu-berlin.de/ioap_bosqt/jobs/.

Admission to BOS.QT is possible upon successful application.

Please send your application with the project number(s) and the required documents by e-mail (in one pdf file, max. 5 MB) to the BOS.QT office: bosqt@physik.tu-berlin.de.

The following documents are required for the application:

CV with publication list, conference papers and awards (see BOS.QT CV template: https://blogs.tu-berlin.de/ioap_bosqt/jobs/); a letter of motivation; the bachelor's degree certificate and transcript of records, the Master's certificate (if issued already) and a transcript of records, a letter of recommendation, preferably from the supervisor of the Master's thesis (directly to the BOS. QT administration: bosqt@physik.tu-berlin.de); a maximum of two names (and email addresses) of people who can be contacted directly by the BOS.QT for another letter of recommendation; the master thesis (or a partial draft as a link or pdf).

By submitting your application via email, you agree to the electronic processing and storage of your data. Please note that we cannot guarantee the protection of your personal data if it is sent as an unprotected file. Please note our data protection information according to DSGVO (General Data Protection Regulation) on the homepage of the [University] [DSGVO website].

To ensure equal opportunities for women and men, applications from women with appropriate qualifications are expressly encouraged. Qualified persons with disabilities will be given preferential consideration. Technische Universität Berlin, Humboldt-Universität zu Berlin and Freie Universität Berlin value the diversity of its members and is committed to the goals of equal opportunity.

Postal address: Anja Meyer do Nascimento Pereira (BOS.QT), TU Berlin, IOAP ER 1-1, Str. des 17. Juni 135, D-10623 Berlin, Germany.

The job announcement is also available on the Internet at: https://blogs.tu-berlin.de/ioap_bosqt/jobs/.