Technische Universität Dresden - Faculty of Physics, Institute of Applied Physics, Chair of Ultrafast Microscopy and Photonics

TUD Dresden University of Technology, as a University of Excellence, is one of the leading and most dynamic research institutions in the country. 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.

Research Associate / PhD Student (m/f/x)

At the Faculty of Physics, Institute of Applied Physics, the Chair of Ultrafast Microscopy and Photonics (Prof. Alexey Chernikov) offers, subject to the availability of resources, a position as Research Associate / PhD Student (m/f/x) (subject to personal qualification employees are remunerated according to salary group E 13 TV-L) starting November 1, 2025. The position is initially limited until October 31, 2027 with the option of extension and entails 75% of the full-time weekly hours. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz - WissZeitVG). The position offers the chance to obtain further academic qualification which is highly recommended. The research activities of the Chair of Ultrafast Microscopy and Photonics concentrate on many-particle effects and interaction with light in solid matter for basic research and applications in future technologies. They take place at the TUD, one the world's leading research institutions in the field of optoelectronics and novel semiconductors, as part of the research projects focused on propagation dynamics of exciton-electron complexes in atomically-thin semiconductors and quantum gases in moiré-ordered and reconstructed heterostructures. We offer you a varied and demanding employment with an excellent working atmosphere in a highly motivated, international team.

City: Dresden; Starting date (earliest): 01/11/25; Duration: The position is initially limited until October 31, 2027 with the option of extension.; Remuneration: subject to personal qualification employees are remunerated according to salary group E 13 TV-L; Closing date: 16/09/25

Working field

scientific research on optical properties of excitonic many-particle states in novel two-dimensional materials: spectroscopic investigations of two-dimensional semiconductors, measurements and analysis using linear and non-linear microscopy. The scientific work further includes collaborations with national and international research partners as well as communication of the results in peer reviewed journals and at international conferences.

Requirements

university degree (master or comparable) in physics; interest in basic and application-related research; high self-motivation; experimental skills in optics and material preparation; familiarity with the broader field of low-dimensional van der Waals materials; ready-to-use and up-to-date knowledge of spectroscopy and microscopy; experience with strain engineering and hybrid heterostructures; excellent command of English language.

Application

TUD strives to employ more women in academia and research. We therefore expressly encourage women to apply. The University is a certified family-friendly university. 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.
Please submit your detailed application with the usual documents by September 16, 2025 (stamped arrival date of the university central mail service or the time stamp on the email server of TUD applies), preferably via the TUD SecureMail Portal https://securemail.tu-dresden.de by sending it as a single pdf file to alexey.chernikov@tu-dresden.de or to: TU Dresden, Professur für Ultraschnelle Mikroskopie und Photonik, Herrn Prof. Alexey Chernikov, Helmholtzstr. 10, 01069 Dresden, Germany. Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

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.

More information at https://stellenticket.de/197596/TUB/
Offer visible until 16/09/25