

Helmholtz-Zentrum Dresden-Rossendorf e.V.



With cutting-edge research in the fields of ENERGY, HEALTH and MATTER, around 1,500 employees from more than 70 nations at Helmholtz-Zentrum Dresden-Rossendorf (HZDR) are committed to mastering the great challenges facing society today. The Institute for Ion Beam Physics and Materials Research is dedicated to the study of materials and their nanostructures that can be considered for future applications in information technology and are based on electrical, magnetic or optical functionalities. The Department of Spectroscopy is looking for a PhD Student (f/m/d) Design and Development of a new Ultrafast Electron Diffraction Instrument.

PhD Student (f/m/d) Design and Development of a new Ultrafast Electron Diffraction Instrument

City: Dresden; Starting Date: 01/02/25; Duration: 31.01.2028; Remuneration: TVöD-Bund; Reference number: 2024/159; Closing date: 31/12/24

Working field

- Work at a world-class international user facility on the development of methods and instrumentation for MeV-UED that will push beyond established capabilities
- Assist in the design and construction of a novel experimental station for MeV-UED
- Perform simulations of the interaction of electrons in matter and develop detection schemes based on the outcomes
- Coordinate accelerator capabilities with experimental demands arising from sample environments
- Extend collaborative work with other facilities in the field of electron diffraction

Requirements

- Excellent university degree (Master/Diploma) in the field of Physics or a similar scientific degree with PhD qualification
- Profound knowledge of quantum mechanics and solid-state physics, basic understanding of accelerator science
- Good experience and skills with hands-on experimental work (e.g. electronic/mechanical/vacuum instrumentation, signal detection and acquisition, optics and lasers, etc.)
- Well-developed social and communicative skills, ability to work collaboratively in an multidisciplinary team
- Programming skills in MATLAB, Python or similar
- Good English language skills, knowledge of German is beneficial

What We Offer

- A vibrant research community in an open, diverse and international work environment
- Scientific excellence and extensive professional networking opportunities
- A structured PhD program with a comprehensive range of continuing education and networking opportunities - more information about the PhD program at the HZDR can be found [here](#)
- Salary and social benefits in accordance with the collective agreement for the public sector (TVöD-Bund) including 30 days of paid holiday leave, company pension scheme (VBL)
- We support a good work-life balance with the possibility of part-time employment, mobile working and flexible working hours
- Numerous company health management offerings
- Employee discounts with well-known providers via the platform Corporate Benefits
- An employer subsidy for the "Deutschland-Ticket Jobticket"

Application

We look forward to receiving your application documents (including cover letter, CV, diplomas/transcripts, etc.), which you can submit via our online-application-system: <https://www.hzdr.de/db/Cms?pNid=490&pLang=en&pOid=73156>

Weitere Informationen unter <https://stellenticket.de/189089/>
Angebot sichtbar bis 05.12.2024

