

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 of Radiation Physics conducts research for states of matter under extreme conditions and in very small dimensions. The Department of Radiation Source ELBE is looking for a

Postdoc (f/m/d) Beam dynamics.

This position supports the DALI project at the HZDR, which has been shortlisted as a priority research infrastructure in Germany. Following a positive evaluation, this project will require a further seven years until the infrastructure is fully constructed and commissioned. Continued employment is therefore planned beyond the current fixed-term contract.

City: Dresden; Starting date (earliest): 01/05/26; Duration: 8 months;

Remuneration: TVöD Bund; Reference number: 2026/41; Closing date: 01/04/26

Tasks

- You are expected to work on electron beam line designs for the RESONATOR projects setting the foundation for the future DALI facility. This includes simulations of the electron beam dynamics, determination of operational parameters as well as the experimental verification of simulation results.
- You are expected to participate in running the ELBE machine in order to get practical experience for the RESONATOR beam line operation.

Requirements

- Completed university studies (PhD) in the field of Physics, preferably Accelerator Physics or related field
- Knowledge of electron beam dynamics and beamline design
- Experience with simulation tools for electron beams or free-electron lasers

What we offer

- A vibrant research community in an open, diverse and international work environment
- Scientific excellence and extensive professional networking opportunities
- 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=77220>

More information at <https://stellenticket.de/202587/TUBS/>
Offer visible until 01/04/26

