TUD Dresden University of Technology, as a University of Excellence, is one of the leading and most dynamic research institutions in the country. Founded in 1828, today it is a globally oriented, regionally anchored top university as it focuses on the grand challenges of the 21st century. It develops innovative solutions for the world's most pressing issues. In research and academic programs, the university unites the natural and engineering sciences with the humanities, social sciences and medicine. This wide range of disciplines is a special feature, facilitating interdisciplinarity and transfer of science to society. As a modern employer, it offers attractive working conditions to all employees in teaching, research, technology and administration. The goal is to promote and develop their individual abilities while empowering everyone to reach their full potential. 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.

At the **Faculty of Physics,** the **Institute of Nuclear and Particle Physics,** in close cooperation with the **Institute of Radiation Physics** of the **Helmholtz-Zentrum Dresden-Rossendorf (HZDR),** offers a project position as

Research Associate / PostDoc (m/f/x)

(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

starting **as soon as possible**. The position is limited until June 30, 2027 with 97,5% of the full-time weekly hours. The period of employment is governed by § 2 (2) Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz - WissZeitVG).

Tasks: Powerful, innovative short-pulse lasers are needed primarily for laser cooling of stored relativistic ion beams at the future SIS100 heavy ion synchrotron at FAIR* (in Darmstadt) but also for optical scanning of relativistic laser plasma processes at the HZDR**. The focus is on the development of a tunable 100-picosecond laser amplifier system with a MHz pulse repetition rate with an output power of more than 50W at a frequency-quadrupled 257.5 nm wavelength. The use of the system on suitable storage rings is intended as part of the project.

Requirements: university degree and, preferably, PhD degree in physics or related subjects (STEM subject) and, if applicable, a PhD degree. Experience in laser physics and willingness to work in a campaign-oriented, international team is desirable.

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 **July 2, 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 **iktp@tu-dresden.de** or to: **TU Dresden, Institut für Kern- und Teilchenphysik, Frau Schulze, 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.