Technische Universität Dresden (TUD), 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, Institute of Nuclear and Particle Physics, the Chair of Experimental Particle Physics offers a position as

**Research Associate / Postdoc – Elementary Particle Physics (m/f/x)**

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

starting on April 1, 2023. The position is initially limited to 3 years and can be extended by up to 3 additional years. The period of employment is governed by the Fixed Term research Contracts Act (Wissenschaftszeitvertragsgesetz WissZeitVG). The position aims at obtaining further academic qualification (e.g. habilitation thesis).

The Chair of Experimental Particle Physics in Dresden is engaged in physics analyses using data of the ATLAS experiment at the LHC, currently focusing on searches for beyond Standard Model Higgs bosons with tau leptons in the final state. The Chair of Experimental Particle Physics is moreover strongly involved in the development of a new digital readout system for the ATLAS Liquid Argon (LAr) calorimeters in preparation of the High-Luminosity LHC. In all areas, advanced data analysis and data processing tools are explored, e.g. machine learning techniques.

**Tasks:** The selected candidate is expected to play a leading role in one or both of the research fields of the Chair, i.e. in ATLAS physics analyses and/or in the development of the digital readout system of the ATLAS LAr calorimeters. Research stays at CERN will be possible.

The position includes teaching at University level and contributions to the academic organization and to computing related tasks of the Chair of Experimental Particle Physics.

**Requirements:** university and PhD degree in physics, or an equivalent qualification; an integrative and cooperative personality with high teamwork abilities, self-motivation skills and organizational talent; interest in fundamental research at a large particle physics experiment; experience in advanced data analysis techniques or in particle detector development or in digital signal and data processing techniques; knowledge of modern computing languages (e.g. C++, Python) and of Linux-based computing systems (In case of a research focus in digital readout development, knowledge of an FPGA programming language is an advantage.). Applicants shall have demonstrated the ability to work in a research environment and prepare research results for publication and presentation at scientific meetings.

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 and offers a Dual Career Service. 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.

For further information about the position, you are invited to contact arno.straessner@tu-dresden.de. Please prepare your comprehensive application as a single pdf document including a Curriculum Vitae, a brief proposal describing your research experience and interests, a list of publications with own contributions, a copy of the certificate of your highest academic degree. The candidate shall submit the application document and arrange recommendation letters by two referees to be sent to preferably via the TU Dresden SecureMail Portal https://securemail.tu-dresden.de by sending it as a single pdf document to iktp@tu-dresden.de or by mail to TU Dresden, Fakultät Physik, Institut für Kern- und Teilchenphysik, Herrn Prof. Dr. Arno Straessner, Helmholtzstr. 10, 01069 Dresden until January 13, 2023 (stamped arrival date of the university central mail services applies). 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.