



TECHNISCHE
UNIVERSITÄT
DARMSTADT

**Postdoctoral Researcher in Experimental Nuclear Physics at the
Institute for Nuclear Physics at the Technical University of Darmstadt**

The Institute for Nuclear Physics at the Technical University of Darmstadt offers a position for a postdoctoral researcher (full time) in experimental nuclear physics in the group of JProf. Marina Petri. The position is embedded in the project “NuSTAR.de” funded by the German Ministry of Education and Research and will be limited to June 30th, 2018.

We are looking for a researcher interested in leading the efforts for designing a High Resolution Spectrometer (HRS) for the R³B setup at FAIR and for exploring the research opportunities with such instrument. The R³B setup, which is under construction, is located at the high-energy branch of the Super-FRS. It constitutes a unique tool for studying very exotic nuclei in complete kinematics and with high acceptance. The addition of a High-Resolution Spectrometer will open up the way for high-resolution measurements even for the heaviest nuclei. Nuclear reactions and structure investigations of exotic nuclei define one of the pillars of FAIR and a HRS coupled to the existing zero-degree superconducting dipole magnet (GLAD) of the R³B setup will offer unparalleled opportunities for such studies. Within this project we want to design a high-resolution spectrometer (along with its tracking detectors) to be coupled to the R³B setup, evaluate its performance and define the unique physics program that will be realized with this instrument.

Experience in experimental nuclear physics is essential. Previous work with magnetic spectrometers, ion-optics physics and related software as well as experience with charged-particle detectors and the GEANT4 simulation package is highly desirable. A good level of programming skills (especially C++, FORTRAN and scripting languages) would be a plus.

Applicants should send electronically a CV, a list of publications, a research statement, and contact details of at least two referees that can support the application to the Director of the Institute of Nuclear Physics, Professor Dr. Dr. h.c. Norbert Pietralla, Schlossgartenstrasse 9, D-64289 Darmstadt, e-mail: gd@ikp.tu-darmstadt.de.

We are looking to fill the position as soon as possible. Review of applications will begin on May 15th and will continue until the position is filled. The candidate is required to hold a Ph.D. degree by the starting date. For informal enquiries please contact Marina Petri at mpetri@ikp.tu-darmstadt.de.

The TU Darmstadt seeks to increase the percentage of female staff and encourages especially women to apply. Severely handicapped applicants are favored in case of equal occupational aptitude.