



In the Department of Physics of the Technical University of Darmstadt, the Institute of Nuclear Physics, for the BMBF-funded collaborative research project "HED@FAIR" the group of Prof. Dr. Markus Roth is currently offering a position of a

Scientist/Research Assistance – 50%

as of 01.04.2019. The position initially runs for three years.

The Institute of Nuclear Physics currently comprises 15 working groups with about 280 people working in the fields of theoretical and experimental nuclear structure physics, nuclear astrophysics as well as laser and plasma physics. It is thus one of the largest of its kind in the world and enjoys a high international reputation.

Within the framework of the research project funded by the BMBF, the interaction of high-power laser pulses with complex targets at a high repetition rate is to be investigated in general. The interaction of the laser pulses with the target can lead to its destruction due to the locally very high energy density. Individual components as well as the electromagnetic pulse associated with the interaction can damage the laser system and components used for diagnosis. The scientific results of this basic research will also be applied to the investigation of high-speed impact scenarios of space debris.

The job applicant will first model the laser-matter interaction with focus on the disintegration of samples as well as spallation and break-up reactions with suitable software. At the same time, she/he will design targets, develop and produce them in the institute's own laboratory and then experimentally test the modelling on high-energy laser systems. The scientific results will then be used to define requirements for supplementary measures to protect laser systems and diagnostics.

A M.Sc. degree in physics, preferably in experimental physics, as well as experience and knowledge in the fields of laser and plasma physics are expected. In addition, knowledge in the field of modeling physical processes are expected. The activity requires a high ability to work in a team and social competence as well as the willingness to take on teaching tasks for one's own scientific qualification.

Opportunity for further qualification (doctoral dissertation) is given. The fulfillment of the duties likewise enables the scientific qualifications of the candidate.

The Technische Universität Darmstadt intends to increase the number of female employees and encourages female candidates to apply. In case of equal qualifications applicants with a degree of disability of at least 50 or equal will be given preference. Wages and salaries are according to the collective agreements on salary scales, which apply to the Technische Universität Darmstadt (TV-TU Darmstadt).

Applications should be sent to the Managing Director of the Institute for Nuclear Physics, Professor Dr. Dr. h. c. N. Pietralla, together with the usual documents and the identification number, Schlossgartenstraße 9, 64289 Darmstadt.

Code No. 53

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Application deadline: February 28, 2019
