TECHNISCHE UNIVERSITÄT DARMSTADT

In the physics department at the Technische Universität Darmstadt in the group of Professor Dr. Markus Roth a position for a

Postdoctoral Nuclear Photonics Young Investigator Group Leader (Ph.D.)

within the LOEWE excellence initiative International Center for Nuclear Photonics is available starting April 1st 2019 limited to 31.12.2022.

The candidates will be chosen jointly with the research center ELI-BEAMLINES, Prague, Czech Republic. Based on a successful evaluation in 2022 the position will be tenured after the end of the LOEWE grant period by and at ELI-BEAMLINES. The possibility for further academic qualification (Habilitation) will be given. An academic link position to the faculty in the tenure phase at ELI-BEAMLINES is supported by the university.

The institute for nuclear physics hosts 15 research groups with around 280 members working in the field of theoretical and experimental nuclear-structure physics, nuclear astrophysics and laser and plasma physics. It is one of the largest of its kind world-wide at highest international reputation.

Nuclear photonics is a novel field of research that uses modern high-power lasers to generate particle beams with unprecedented properties. These include polarized gamma rays and laser-controlled neutron beams, which provide a better insight into the structure of matter and promise great potential for technical and industrial applications. The “International Center for Nuclear Photonics" at the TU Darmstadt combines advanced laser technology with methods developed in the field of nuclear physics and will be a central contact point for researchers, students, international partner institutions and industrial partners.

We are looking for a young investigator group leader with the focus on laser-driven neutron sources and research at ultra-high intensity lasers. The candidate is expected to play a leading role in planning and execution of experiments at ultra-high intensity laser systems on the generation and control of laser-driven neutron beams. The candidate is supported by a PhD position at his/her disposal, funded by the LOEWE grant. In addition to research the candidate will supervise students and participate in teaching of the curriculum. He/she will get the support to present the research at international conferences and workshops.

We are looking for a candidate with an excellent PhD in the field of laser or plasma physics, sound knowledge and experience in plasma physics, particle acceleration and interaction with high power lasers. Experience in diagnostics and analysis of relativistic plasmas are desirable. Also, experience with supervision of students is helpful. He/She shall be used to independent research work, have some experience in larger research collaborations, be able to contribute in a team and be excited about new challenges.

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

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). Part-time employment is generally possible.

Applications including a CV, a letter of motivation, a list of publications and certificates 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. 55

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