



Within the framework of the LOEWE initiative "Nuclear Photonics" funded by the Hessian Ministry of Science and Art, the research group of Professor Dr. Dr. h.c. mult. Norbert Pietralla at Technische Universität Darmstadt is looking for a

Research Assistant (Postdoc)

The contract is supposed to start as soon as possible and is limited to a duration of two years.

The position is embedded in subproject B2, which focuses on nuclear structure studies using photonuclear reactions with laser-based gamma beam sources. Using new experimental techniques based on the phenomena of nuclear resonance fluorescence and nuclear self-absorption, level densities and photon strength functions will be investigated. The associated experiments will be performed at the High Intensity Gamma-Ray Source (HIGS) at Duke University, NC, USA, and at the superconducting Darmstadt Electron Linear Accelerator (S-DALINAC). They are aimed at the future Variable-Energy Gamma Beam System at the European Extreme Light Infrastructure - Nuclear Physics (ELI-NP) in Magurele, Romania, where the LOEWE initiative is expected to take a leading role. In addition to the research activities, tasks in the field of research management with regard to the LOEWE initiative are to be taken over.

Your tasks include in particular

- further development of the method of nuclear self-absorption for the investigation of unbound excited states
- the technical design, construction and commissioning of a temperature control system for heating and cooling of photon scattering targets
- the operation and further development of the $(e,e'\gamma)$ setup at the Q-CLAM electron spectrometer
- active participation in experiments at S-DALINAC and HIGS, and
- organizational tasks within the LOEWE initiative in connection with events, public relations, promotion of young scientists and the necessary reporting system

The successful candidate should have the following skills

- doctorate in experimental physics with a "very good" degree, preferably with a focus on low-energy nuclear physics
- profound knowledge and experience in experimental nuclear structure physics
- practical experience and good knowledge in scientific programming (e.g. C++, Root, Python, etc.) for experimental data analysis
- knowledge and expertise in modern particle detectors, electronics and data acquisition systems
- very good communication skills and experience in working with scientific and non-scientific personnel
- good knowledge of written and spoken English and basic knowledge of German
- basic knowledge in research management

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). Part-time employment is generally possible.

The application should include the following: a curriculum vitae, a list of publications, a letter of motivation, two letters of recommendation (to be sent separately by the authors to: gd@ikp.tu-darmstadt.de)

Please send the first three application documents (mentioning the given code-no.) by e-mail as a single pdf with the subject 'Nuclear Photonics - Postdoc B2 Vacancy' to the Director of the Institute of Nuclear Physics, Professor Dr. Dr. h.c. mult. Norbert Pietralla, with e-mail address: gd@ikp.tu-darmstadt.de

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