

The **II. Physical Institute** offers within the project “European Nuclear Science and Application Research 2 (ENSAR2)”

Research Associate (100 %)

The position is of limited duration and can be filled from 01.07.2018 up to 30.06.2019. In agreement with the current legislation the position is remunerated according to “Entgeltgruppe 13 Tarifvertrag Hessen (TV-H)”.

The group of Prof. Scheidenberger studies exotic nuclei far off stability and their properties. These nuclei are produced at the fragment separator (FRS) at GSI and are investigated with sophisticated detector systems. The group of Prof. Scheidenberger develops new methods and instruments for experiments with exotic nuclei, such as precision mass spectrometry, reaction and decay measurements. The group is significantly involved in simulations and in further developments of simulation software (eg. GEANT, ATIMA, MOCADI, MIRKO, ITSIM) for the preparation of these FAIR Phase-0 experiments and future experiments at the Super-FRS. In the framework of the European network SATNURSE (a work package of ENSAR2 in HORIZON2020) the group of Prof. Scheidenberger implements atomic and nuclear interaction routine, specific for heavy ions, in GEANT4.

Opportunities:

The candidate will implement the particular heavy ion routines in GEANT4. This will include the atomic interactions when heavy ions penetrate matter. In addition, detailed simulations of high resolution experiments at the fragment separator will be performed. Further developments of simulation software for ion motion inside a buffer-gas filled structure taking into account electro-static and high-frequency fields and their application to simulations of experiments will be part of the work.

Requirements:

The candidate has successfully completed a scientific study of physics, and keeps a Diploma or Master of Science or an equivalent degree. Experience and excellent knowledge in experimental nuclear physics simulation and knowledge in the application of GEANT, MOCADI, ATIMA or similar codes is expected. Familiarities with computational and programming skills in C++, Fortran etc. are expected. Good communication skills in English as well as participation in an international environment and traveling are expected.

The Justus-Liebig-Universität Gießen is an equal opportunity employer, committed to diversity. Therefore applications from all qualified candidates, regardless of gender, race, ethnicity, or physical challenges are encouraged. The Justus-Liebig-Universität Gießen welcomes applications of candidates with children.

Interested candidates should submit their application with the usual documents under **reference number 352/21985/07** by **June 22nd, 2018** to **Prof. Dr. Christoph Scheidenberger, II. Physikalisches Institut, Heinrich-Buff-Ring 16, 35392 Gießen**. Handicapped persons will be hired preferentially, provided they exhibit equal qualification. Only copies shall be submitted, as the applications will not be returned to the applicants after review.