

NUCLEAR ASTROPHYSICS

Microscopic description of nucleosynthesis of p-nuclei

OPEN POSITION FOR A DOCTORIAL STUDENT

Within the EuroGENESIS project EXNUC the position of a PhD student is opened at the Atominstitut, TU Wien in the group of H. Leeb (Theoretical Nuclear Physics and Nuclear Astrophysics). The position is funded by the FWF (Austrian Science Foundation) for 3 years and could be filled with October 2010.

Topic:

The project is part of the ESF EUROCORES programme EuroGENESIS and aims at a better understanding of explosive scenaria in compact stars. In a European-wide collaboration various open questions are studied. The research at the Atominstitut is focussed on the development of a microscopic approach to the alpha-nucleus optical potential. Especially it is envisaged to develop an improved nuclear structure approach using the techniques of many-body field theory. Thus it is expected that reliable optical potentials at low energies of astrophysical interest can be obtained. This development will provide the required tool for an improved description of the synthesis of p-nuclei.

The successful candidate should have computer skills and a profound knowledge of theoretical nuclear physics with emphasis on scattering and reaction theory. In addition it would be preferable if some preliminaries of many-body quantum field theory are known.

Employment:

Standard contract for a doctoral student offered by the FWF, Austria.

Application:

For application contact ao. Univ. Prof. Dr. Helmut Leeb via e-mail leeb@kph.tuwien.ac.at . Please provide also the Diploma Certificate, CV, list of publications and an abstract of your Master thesis.