

PhD Position in Computational Nanomechanics

The Institute for General Material Properties of the Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU) is seeking outstanding PhD candidates in the context of a research training group on in-situ microscopy of nanoscale structures.

The mechanical behavior of metallic nanostructures differs dramatically from their bulk counterparts. Nanowires, particles or thin films can have yield stresses of the order of the theoretical strength and significantly modified elastic properties. In this project, atomistic simulations will be used to complement in-situ experiments to gain insights in the fundamental deformation mechanisms at the nanoscale. The project is part of the research training group GRK 1896 "In Situ Microscopy with Electrons, X-rays and Scanning Probes", which provides PhD students with comprehensive, method-spanning and interdisciplinary training in the application of cutting-edge nanocharacterization tools to materials and device development. For more information on the project see: <http://www.grk1896.uni-erlangen.de>

Highly qualified candidates with academic education in physics, materials science or related disciplines are invited to apply. Degrees such as M.Sc. or equivalent qualifications are required for PhD studies. The successful candidate will be experienced in scientific programming and in using numerical simulations (preferably Molecular Dynamics) and have solid background in solid state physics or physical metallurgy and an interest in the mechanical behavior of materials. Excellent oral and written communication skills and the ability to work well in a dynamic and collaborative research environment are essential. The position is full-time, and payment follows the German TV-L 13 scale. The starting date is as soon as possible. The University of Erlangen-Nürnberg intends to increase the number of women in research and teaching positions and, therefore, strongly encourages female researchers to apply. Disabled applicants will be preferentially considered in case of equivalent qualification.

Please send your application (including a cover letter describing your research interests, curriculum vitae, transcript of records as well as contact information of two references) to ww1-comp-mat-sci-jobs@fau.de.