

PhD Position in Computational Nanomechanics

The Institute for General Material Properties of the Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU) is seeking an outstanding PhD candidate to participate in a research-training group on in-situ microscopy on nanoscale objects.

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, mechanical engineering or related disciplines are invited to apply. Degrees such as M.Sc. or equivalent qualifications are required for PhD studies. The successful candidate will have a solid background in physical metallurgy and mechanical behavior of materials, as well as experience with numerical simulations (preferably Molecular Dynamics) and scientific programming. Excellent oral and written communication skills and the ability to work well in a dynamic and collaborative research environment are essential. The PhD positions are provided for up to three years and will be paid according to the regulations of the collective wage agreement of the civil service.

Please send your application (including a cover letter describing your research interests, curriculum vitae, scanned certificates and contact information of two references) to comp-mat-sci-jobs@ww.uni-erlangen.de and grk1896@ww.uni-erlangen.de