

Postdoctoral Research Position at ARI-ZAH Computational Astrophysics, Computer Science (GRACE)

The “Zentrum für Astronomie” of Heidelberg University (ZAH) invites applications for a postdoctoral research position in computational astrophysics of dense stellar systems (galactic nuclei, star clusters, direct N-body simulation). The position is located within the GRACE project at the Astronomisches Rechen-Institut (ARI), which is constituting the ZAH with the “Institut für Theoretische Astrophysik” and the “Landessternwarte Königstuhl”.

GRACE is an interdisciplinary research project and team, consisting of members from the Universities of Heidelberg, Mannheim and Munich (Astrophysics and Informatics), led by Prof. R. Spurzem. The aim is to implement particle based algorithms for astrophysical N-body systems and fluid flows on a new kind of special purpose hardware (reconfigurable boards called MPSPACE, which contain field-programmable gate arrays, FPGA) and to apply them to key astrophysical problems in the area of dense stellar systems, evolution of galaxies or galactic nuclei.

The successful candidate is expected to have a strong interest and knowledge in software and hardware issues of high performance computing, including the ability to support frequent and steady interaction with our project partners from informatics. Experience in one or more of the following fields is desirable: GRAPE systems, FPGA programming, Beowulf PC clusters, or other high performance supercomputers. The group uses primarily our GRACE supercomputer (32 GRAPE, 32 MPSPACE, 32 Dual-Xeon nodes, 4 Tflops), and there is access to federal German supercomputers (IBM, Blue Gene, CRAY XD1).

The appointment is originally for 2 years. The salary is on the German civil service level. Review of applications will begin March 3, 2006 and will continue until the post is filled. Applicants should submit their CV, list of publications, and a brief statement of research interests to the address above, and arrange for two letters of reference, all preferably sent by e-mail. Heidelberg has a large international community, also outside astrophysics. Heidelberg University is an equal opportunity employer and particularly encourages applications from women.

Further information: please contact Prof. R. Spurzem (spurzem@ari.uni-heidelberg.de) and the webpages:

<http://www.ari.uni-heidelberg.de/grace> (GRACE project)

<http://www.ari.uni-heidelberg.de/mitarbeiter/spurzem/> (Experimental Stellar Dynamics)