

BACKGROUND:

"Applications of Regularized Smoothed Particle Hydrodynamics to gravitationally dominated fluids in astrophysics" is a 2-year project,

started 1st January 2006, funded by the Research Council of Norway.

The project aims at utilizing recent developments in the SPH related method Regularized Smoothed Particle Hydrodynamics (RSPH) on relevant problems in astrophysics, such as planet-disk interactions and star formation. The main focus of the project is to investigate to what extent RSPH can be of use in studying these types of problems. In order to achieve this aim, collaborations have been initiated with Dr. Roland Speith in Tuebingen and Dr. Daniel Price in Exeter. RSPH itself has been shown to give good results on shock-type problems in hydrodynamics as well as magnetohydrodynamics. An updated description of the method can be found in Borve et al., *Astrophys. J* 2006 (preprint available from <http://www.journals.uchicago.edu/ApJ/future.html>); Borve et al., *J. Comput. Phys.* 2005, 208, 345; and Omang et al., *J. Comput. Phys.* 2005, 213, 391.

Along with the rest of the project, funding for postdoctoral positions has been limited to the total of 2 years. One man-year is being spent this year, unfortunately leaving only 1 year available for the position currently being announced. Assuming we can fill this one-year position with a candidate who is also interested in extending the work in Oslo, we are prepared to apply for additional funding starting from 2008. However, it should be pointed out that the outcome of such an application is at best uncertain.

ANNOUNCEMENT:

POSTDOCTORAL RESEARCH FELLOW POSITION IN NUMERICAL ASTROPHYSICS

A position as postdoctoral research fellow at the Institute of Theoretical Astrophysics of the University of Oslo is available.

Further information: Professor Jan Trulsen,  
phone.: (+47) 22 85 65 40, email: [jan.trulsen@astro.uio.no](mailto:jan.trulsen@astro.uio.no)

The position is available from 1st January, 2007 and can be held for a period of up to one year.

Pay grade: 54 - 58 (NOK 389600 - 418400) depending on qualifications

Closing date for applications: 15th December, 2006

REF. NO. 06/XXXX

CV, list of publications, documentation of higher education with exam marks, and two letters of reference to be sent, marked Ref no. 06/XXXX, to: The Faculty of Mathematics and Natural Sciences, University of Oslo, att. Senior Executive Officer Gro Corell, P.O. Box 1032 Blindern, N-0315 Oslo, Norway, e-mail: [gro.corell@matnat.uio.no](mailto:gro.corell@matnat.uio.no).

Application papers will not be returned.

The applicant should hold a Ph.D. degree in physics, astrophysics or a closely related subject.

The position is connected to the project "Applications of Regularized Smoothed Particle Hydrodynamics to gravitationally dominated fluids in astrophysics", funded by the Research Council of Norway. The successful applicant is expected to carry out numerical/theoretical research related to the project.

The application must include a CV, list of publications, exam marks, and a short research proposal. The applicant should also arrange for two letters of reference to be sent to the address above.

The University of Oslo wishes to recruit more women in research positions. Women are encouraged to apply. Further guidelines are given by the following web page: <http://www.uio.no/admhb/reglhb/personal/tilsettingvitenskapelig/guidelinespostdoctor.xml>.

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