



Postdoctoral research position: CFD modeling of plasma turbulence

The Flow Physics and Computational Engineering group (FPCE) in the Department of Mechanical Engineering at Stanford University invites applicants for a postdoctoral position in the area of plasma hydrodynamics. Candidates with background in numerical simulation of turbulence (DNS, LES) and/or plasma modeling (kinetic/fluid models, nonequilibrium effects, MHD) are particularly encouraged to apply. The successful candidate will work under the supervision of a faculty member at the FPCE, and will conduct numerical simulations of magnetically induced plasma environments with an emphasis on thermal/magnetically driven chaos and instability. Computational resources will be provided through FPCE's supercomputer facility. Dissemination of research results is expected through technical reports and publications in academic journals and conference presentations.

Stanford University provides a scholarly environment to interact with faculty, PhD students and postdoctoral researchers, and visiting fellows through seminars, workshops, and biennial summer programs of the Center for Turbulence Research on various disciplines involving fluid mechanics and turbulence physics. In addition, researchers are provided with the opportunity to establish connections and collaborations with industry through Stanford's Thermal and Fluid Sciences Affiliates and Sponsors program.

This is a full time position with an initial appointment period of one year with the possibility of extension contingent on availability of funding and satisfactory research performance. Educational requirement is a PhD degree in mechanical engineering, applied physics or closely related disciplines. Special consideration will be given to candidates with experience in numerical analysis and large-scale computation of multiphysics fluid phenomena. Previous experience in plasma modeling is also highly valued.

The position is available immediately, and we will accept applications until the position is filled.

Interested candidates are encouraged to send their application package including curriculum vitae, a cover letter describing research interests and future plans, selected publications, and contact information of three references to Rosa Fernandez (rosa.fernandez@stanford.edu).