

Postdoctoral positions in computational research at SJTU

Institute of Natural Sciences (INS) – a newly established interdisciplinary institute at Shanghai Jiao Tong University (SJTU) (<http://ins.sjtu.edu.cn>) to conduct first-rate research in natural and engineering sciences, is recruiting **Institute postdoctoral researchers** in computational sciences and engineering. The initial appointment will be for two years with a possible renewal for the third with an annual salary of 170000 RMB and a research startup fund. The potential candidates should demonstrate record of top quality research work in computational research and interdisciplinary research background. Eight (8) positions are available for strongly-motivated researchers to conduct high quality interdisciplinary research between INS members and science faculties on campus in the following areas.

- **Computational plasma simulation for high energy density physics (HEDP)** driven by laser or particle beam-plasma interaction, with experience in numerical methods such as particle-in-cell, Fokker-Planck, or particle-fluid hybrid schemes, etc.
- **Molecular dynamics and Monte Carlo simulations of reactive systems** to predict equilibrium products with applications in old and new energy materials (oil, coal, hydrogen) , with research background in theoretical or computational chemistry
- **Computation modeling of Coulomb many-body systems in colloidal and biological sciences** to study electrostatic double layers between charged mesoscopic particles and electrolytes and finite size effects and ion correlations. Background in fast algorithms such as FMM and enhanced sampling techniques is desirable.
- **Molecular dynamics simulations of membrane proteins and energetic materials** for the study of drug binding sites in the M2 proton channel with application in new drug designs, and solid phase explosive reactions for new energetic materials.
- **General areas of scientific computing:** At least **four (4)** other positions at various salary levels will be available in areas including computational fluid dynamics, computational neurosciences, multi-scale and stochastic modeling of biological and physical systems, etc.

Applications should consist of curriculum vitae, including a list of publications, summary of future research plans, and three letters of reference. Application materials should preferably be electronically sent to Ms. Hong Wei (weery@sjtu.edu.cn).

They can also be mailed to:

Ms. Hong Wei
Institute of Natural Sciences
Shanghai Jiao Tong University
Shanghai 200240, China.

Review of applications will begin immediately, and will continue for the next several years.