Open HEDP Research Associate Position at the Laboratory for Laser Energetics

UR LLE

The Laboratory for Laser Energetics (LLE) at the University of Rochester is a unique national resource with a premier high-power laser facility for research in inertial confinement fusion (ICF), high-energy-density physics (HEDP), and basic science. The Laboratory is performing ignition-related experiments on its own OMEGA Laser System, as well as the National Ignition Facility (NIF) at Lawrence Livermore National Laboratory (LLNL). Scientists from LLE have been instrumental in the development of experimental techniques and diagnostics while collaborating with scientists at Lawrence Livermore and other national laboratories on the key science campaigns leading to ignition and to better understanding of HEDP.

LLE is home to both the OMEGA and OMEGA EP Laser Systems. OMEGA is a 60-beam solid-state laser system capable of delivering 30-kJ, nanosecond UV pulses to a target. OMEGA EP is a short-pulse laser system capable of delivering up to 1-PW intensities (700 J in 700 fs). Research is conducted for LLE as well as other national laboratories and universities. Information regarding the Laboratory for Laser Energetics can be found at **www.lle.rochester.edu**. The University of Rochester is an equal opportunity employer.

Computational/Theoretical HEDP Research Associate

Pending budget approval, the HEDP-Theory Group in LLE's Theoretical Division seeks a computational/theoretical physicist to carry out rigorous and high-impact researches in high-energy-density science important to both ICF and basic science. Close collaborations between HED theorists and experimentalists are being actively pursued at Laboratory for Laser Energetics. The successful candidate needs to have a demonstrated track record of using state-of-the-art methods, such as density-functional theory (DFT), path-integral Monte-Carlo (PIMC), quantum Monte-Carlo (QMC), or time-dependent density-functional theory (TDDFT), to understanding the properties of matter under extreme conditions. In particular, successful candidates are encouraged to explore new directions in HED science, for example, using X-ray Thomson Scattering, diffraction, and absorption near edges as probes to new structures and properties of materials under extreme density/temperature conditions. Experience with dense plasmas modeling, as well as good interpersonal skills, the willingness to work in a team, and the ability to communicate well in writing are desirable. A Ph.D. in quantum physics, atomic and molecular physics, condensed matter physics, plasma physics, or a related area is required.

Qualified applicants for this position should submit a dossier that includes a cover letter outlining how the applicant sees himself/herself contributing to the research project, curriculum vitae and a list of publications. The applicant should arrange for at least **three** letters of recommendation to be sent to ssta@lle.rochester.ed.

Candidates are invited to apply online at **www.rochester.edu/jobopp**.
Please apply to Job Opening ID **210891**.