Postdoctoral Research Associate in Experimental Plasma Physicist (NSTX)

Fusion Energy Division
Energy and Engineering Sciences Directorate
Oak Ridge National Laboratory
Oak Ridge, Tennessee

ORNL09–13–FED

Project Description:
The Fusion Energy Division at the Oak Ridge National Laboratory (ORNL) seeks applications for a Experimental Plasma Physicist. ORNL's Experimental Plasma Physics Group carries out research in nearly all areas of magnetic fusion energy development and related technology development. The program is a strong and vital component of both the U.S. fusion program and the international fusion community. The successful candidate will work with a multidisciplinary team of experimental and theoretical physicists in the area of tokamak plasma transport and boundary physics, as part of the ORNL domestic and international fusion research collaborations. Employer will assist with relocation costs. Competitive postdoctoral salary depending on qualifications.

Major Duties and Responsibilities:
The successful candidate will be involved in conceptualizing, leading, and performing experimental research and development in the area of divertor and scrape-off layer physics on the NSTX experiment at Princeton Plasma Physics Laboratory. The selected candidate will be responsible for interaction with division staff and the many external collaborators that the group works with. The candidate will be expected to work independently, develop diagnostic measurements for the divertor characterization, compare data with existing theoretical models, fully document work in technical reports and publications, effectively interface with project sponsors, and participate in the identification and development of research proposals.

Qualifications:
The successful candidate must have completed a Ph.D in Plasma Physics or a closely related field. The applicant is expected to have experience in divertor and/or boundary physics plasma characterization. We are especially interested in applicants with experience in fast ion physics, in interactions of RF heating with plasmas, in electronic instrumentation, and in developing software for data acquisition and analysis. The candidate should also be familiar with plasma transport mechanisms in fusion devices and have experience with transport modeling. The ability to interact with theorists and to plan and interpret experiments in light of theoretical models is a major consideration. Excellent verbal, presentation, and writing skills are required to enable effective interaction and communication with technical peers, program managers, collaborators, and sponsors. Applicants cannot have received the most recent degree more than five years prior to the date of application.

How to Apply:
Qualified applicants must apply online at https://www2.orau.gov/ORNL_POST/. All applicants will need to register before they can begin the online application. For complete instructions, on how to apply, please see the instructions at http://www.orau.gov/orise/edu/ornl/ornl-pdpm/application.htm. When applying for this position, please reference the position title and number.

This appointment is offered through the ORNL Postgraduate Research Participation Program and is administered by the Oak Ridge Institute for Science and Education (ORISE). The position is open to citizens or legal permanent residents of the US without regard to race, color, age, religion, sex, national origin, physical or mental disability, or status as a Vietnam-era veteran or disabled veteran.