

# **Postdoctoral Research Associate in Plasma Physics – Fusion Engineering and Technology**

## **Fusion Energy Division Fusion Plasma Science and Technology Integration Spherical Torus and Advanced Systems Research & Development Energy and Engineering Sciences Directorate Oak Ridge National Laboratory Oak Ridge, Tennessee**

ORNL09–25–FED

### **Project Description:**

The Fusion Energy Division at Oak Ridge National Laboratory (ORNL) seeks applications for a Plasma Physicist with a Fusion Engineering and Technology education. ORNL Fusion Energy Division carries out research in nearly all areas of magnetic fusion energy science and related technology development. The successful candidate will work with a multidisciplinary team of plasma physicists, engineers, and technologists in the area of Spherical Torus (ST) physics and Advance Systems research and development, with substantial national and international collaboration opportunities. The fusion program at ORNL is a strong and vital component of both the U.S. fusion program and the international fusion community, and has leadership in innovation to accelerate the realization of fusion energy. ORNL is one of the world-premier national laboratories carrying out a full spectrum of Energy Science and National Security R&D activities. Employer will assist with relocation costs. Competitive postdoctoral salary offered, depending on qualifications.

### **Major Duties and Responsibilities**

The successful candidate will be involved in conceptualizing and performing applied research and development in the areas of ST and Advanced Systems. The candidate will be expected to develop analysis tools to assess the scientific merits of future fusion initiatives. These tools will be used to determine the fusion energy sciences R&D capabilities of such initiatives in order to accelerate the realization of fusion energy. The selected candidate will be responsible for staying abreast of the broad and relevant advances in fusion plasma science and technology, interacting with division staff and external collaborators that the group works with, developing and vetting innovative approaches, fully documenting work in technical reports and publications, effectively interfacing with project sponsors, and participating in the identification and development of research proposals.

### **Qualifications:**

The successful candidate must have completed a Ph.D. in magnetic fusion Plasma Physics and/or a closely related fusion engineering and technology field, and is expected to have experience in plasma experiments, modeling and/or analysis. Of special interest will be applicants with experience in computational tools and their development, demonstrated awareness in the broad challenges and issues of practical fusion experimental and future

energy systems, and familiarity with fusion plasma physics properties in present and future planned experimental devices. The ability to interact with plasma physicists, fusion engineers and technologists in the development and use of integrated analysis tools to characterize present and future R&D initiatives and facilities will be of importance. 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.

**Technical Questions:**

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**How to Apply:**

Qualified applicants must apply online at [https://www2.ornl.gov/ORNL\\_POST/](https://www2.ornl.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.ornl.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.