

# **Postdoctoral Research Associates in Computational Plasma Physics**

**Plasma Theory Group  
Fusion Energy Division  
Oak Ridge National Laboratory  
Oak Ridge, Tennessee**

**ORNL10-07-FED**

## **Project Description:**

The Plasma Theory Group of the Fusion Energy Division (FED) at Oak Ridge National Laboratory (ORNL) is seeking two postdoctoral research associates to conduct computational research towards the development of novel, efficient, and accurate numerical algorithms for plasma simulation. The main goal of the project is the exploration of fully implicit, fully nonlinear temporal discretization techniques. 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 work in close collaboration with the technical contact of this notice, and will interact with participating investigators within and outside the Plasma Theory Group. The candidate will be expected to further development of existing implicit algorithms towards the inclusion of higher fidelity physical models of relevance to fusion plasmas. The candidate should expect to become thoroughly familiar with modern nonlinear and linear solver approaches, and will be expected to develop and optimize parallel computer code.

## **Qualifications:**

The successful candidate must have a PhD in Plasma Physics, Applied Mathematics, or a related field, and must have previous experience in developing numerical simulation tools. In addition, previous experience with fluid and/or particle-based simulation techniques is highly desirable, as are strong communication skills. Applicants cannot have received the most recent degree more than five years prior to the date of application appointment.

## **Technical Questions:**

For more information about this position please contact Dr. Luis Chacon at [chaconl@ornl.gov](mailto:chaconl@ornl.gov) and reference this position title and number in your correspondence.

## **How to Apply:**

Qualified applicants may 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. Please use Microsoft

Internet Explorer Browser to apply for the position you desire. Once at the site, please select the “New Applicant user? Click the Here to Register” link. Once you have registered you will receive a confirmation email. At that point you will be able to fill out the on line application.

This appointment is offered through the ORNL Postdoctoral Research Associates Program and is administered by Oak Ridge Associated Universities (ORAU). This appointment is open to all qualified U.S. and non-U.S. citizens without regard to race, color, age, religion, sex, national origin, physical or mental disability, or status as a Vietnam-era veteran or disabled veteran.