

Post-Master's or Postdoctoral Research Associate in Computational Nonlinear Dynamical Systems

**Center for Engineering Science Advanced Research
Computer Science and Mathematics Division
Computer and Computational Sciences Directorate
Oak Ridge National Laboratory
Oak Ridge, Tennessee**

ORNL09-109-CSMD

Project Description:

The Center for Engineering Science Advanced Research (CESAR) in the Computer Science and Mathematics (CSM) Division of the Oak Ridge National Laboratory (ORNL) seeks candidates for innovative research in computational and theoretical nonlinear dynamical systems.

Work will involve development of novel methodologies, computer codes and algorithms to model the dynamics of semiconductor and fiber lasers/amplifiers and laser arrays and their implementation on parallel distributed multicore processor platforms. Successful candidates must have proven experience in optics/lasers, nonlinear dynamical systems, and strong computational skills. Programming skills in FORTRAN 95/2003 Linux and Windows systems are desirable. The positions require MSc or, preferably, PhD degrees in Electrical Engineering, Computer Science, Applied Mathematics, Theoretical Physics, or related fields. Exceptional candidates with a BSc degree will also be considered.

Each opening corresponds initially to a Postgraduate / Postdoctoral Associate position that may potentially grow to full staff member position. Starting salaries (in the range of US \$45 – \$55K, depending on qualifications) and exceptional benefits (e.g., health coverage, vacations, etc) are being offered.



ORNL east campus showing Center for Computational Sciences (left); Spallation Neutron Source and Institute for Nanophase Materials (right)

ORNL is a multi-program research facility managed by UT-Battelle for the US Department of Energy. It is an equal opportunity employer and committed to building and sustaining a culturally diverse work place. ORNL is located near the city of Knoxville, in East Tennessee at the foothills of the Smoky Mountains and enjoys a mild climate all year round. Exceptional educational facilities are available, including the Oak Ridge School System, one of the best in the country.

Qualifications:

The successful candidate is expected to have completed their Masters degree or Ph.D. in physics, mathematics, statistics, engineering or related field.

Applicants cannot have received the most recent degree more than five years prior to the date of application and must complete all degree requirements before starting their appointment.

Technical Questions:

Interested candidates may contact Dr. Yehuda Braiman, Center for Engineering Science Advanced Research, Computer Science and Mathematics Division, Oak Ridge National Laboratory, 1 Bethel Valley Road, Oak Ridge, TN, 37831-6015, USA. E-mail to: braimany@ornl.gov. Please reference the position title and number when corresponding about this position.

How to Apply:

Qualified applicants may apply online at 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 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.