

# **Planetary Atmosphere X-ray Emission**

## **Physics Division Oak Ridge National Laboratory Oak Ridge, Tennessee**

### **Project Description:**

Applications are sought for a postdoctoral appointment with a negotiable starting date beginning in about June, 2007 for work to model x-ray emission from planetary atmospheres. The successful applicant would extend and exercise existing modeling codes, and develop new ones that use atomic collision cross sections and transition rates in order to track charge state and photon emission as ions precipitate into the atmospheres of Jupiter, Saturn, Mars, and Venus. The work will follow previous research along the lines described in "Ion emission spectra in the Jovian X-ray aurora," Kharchenko, Dalgarno, Schultz & Stancil 2006 Geophys. Res. Lett. 33, L11105. The initial appointment will be for one year, renewable for a second depending on the availability of funds and work progress. The application deadline is April 30, 2007, but the search will continue until a suitable candidate is identified. When applying for this position, please reference the position title and number (ORNL07-26-PHY).

### **Qualifications:**

The position requires a Ph.D. in physics, astrophysics or astronomy as well as computer simulation experience and a knowledge of Fortran.

### **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. 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 (ORNL07-26-PHY).

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 who currently work in the U.S and are available for interview, without regard to race, color, age, religion, sex, national origin, physical or mental disability, or status as a Vietnam-era veteran or disabled veteran.