

## Los Alamos National Laboratory Experimental Nuclear Physics Postdoc

**Vacancy Name: IRC69464**

**Online Application: <http://jobs.lanl.gov>**

### Description

The P-27 group in Physics division is looking for postdoctoral candidates to work in the Nuclear Astrophysics and Structure (NAS) and Nuclear Data (ND) Teams on direct and indirect measurements of neutron-induced reactions. The successful candidate will perform measurements and analysis at the Los Alamos Neutron Science Center or external charged particle and rare isotope beam facilities. There are additional opportunities to develop the suite of instruments located at the Los Alamos Neutron Science Center (LANSCE) and in P-27's external measurement programs. At LANSCE, tools include the Detector for Advanced Neutron Capture Experiments (DANCE), the Low-Energy (n,Z) (LENZ) instrument, the Chi-Nu Prompt Fission Neutron Instrument, the fission Time Projection Chamber (TPC), and the SPectrometer for Ion DEtermination Research (SPIDER). The teams are actively involved in developing new instruments to take advantage of the unique time-of-flight neutron beams made available at LANSCE. At NNSS, we are part of a large collaboration developing the capability for Neutron Diagnosed Subcritical Experiments. Outside Los Alamos, we actively pursue measurements studying the underlying nuclear physics to infer nuclear reaction rates for short-lived nuclei.

Research areas in the group include studies of nuclear astrophysics (s-process, r-process, heavy element synthesis), nuclear structure (gamma-ray spectroscopy, level density, photon strength function), nuclear reactions, studies of the fission outputs, and related topics. The teams are tightly coupled to the LANL T-2 nuclear physics and astrophysics theory group as well as rad-hydro modeling teams in CCS-2, XCP, and XTD. The intense neutron spallation sources at LANSCE are used in much of this work and cover a neutron energy range from sub-thermal to 800 MeV.

A broad range of expertise and background is desired, and there are multiple distinct projects that a successful candidate could pursue within the research disciplines of the group. There may be additional opportunities for collaborative work with scientists from other groups or divisions at LANL. Highly qualified applicants will be considered for Director's or Agnew National Security Postdoctoral Fellowships with exceptional candidates being considered for the prestigious Marie Curie, Richard P. Feynman, J. Robert Oppenheimer, or Frederick Reines Fellowships.