



# Submit LANSCE proposals by March 2

February 8, 2018

The Los Alamos Neutron Science Center (LANSCE) invites proposals for experiments to be performed at one of its three user facilities, the [Weapons Neutron Research \(WNR\)](#), the [Manuel Lujan Neutron Scattering Center \(Lujan\)](#), and [Proton Radiography Facility \(pRad\)](#).

Nuclear science capabilities at WNR provide users neutron and proton beams, as well as detector arrays for basic, applied, radiation effects, and defense-related research. Target 4 produces neutron beams with energies ranging from about 0.1 MeV to more than 600 MeV, Target 2 (Blue Room) exposes samples to a direct proton beam with energies up to 800 MeV, and Target 1 makes cold to epithermal neutrons (1 meV - 500 keV) available for experiments.

Lujan Center capabilities to consider for this call are the SMARTS and HIPPO diffractometers, Flight Path 5 for neutron radiography, the Asterix neutron reflectometer, and phase contrast imaging. The instruments operate in time-of-flight mode, receiving neutrons from a tungsten spallation target. Four moderators provide epi-thermal, thermal, and cold neutrons to these specialized beamlines. All materials relevant to NNSA and DOE/NE work can be handled at the Lujan Center.

pRad uses a high-energy 800-MeV proton beam from the LANSCE accelerator to image the properties and behavior of materials under a variety of conditions like extreme pressures, strains, and strain rates. Users can diagnose dynamic and static experiments in support of national and international weapons science and stockpile stewardship programs and other research that benefits from the unique capabilities of proton radiography. In the FY19 run cycle, the pRad facility will have new high explosive, pulsed power (PHELIX) and 40-mm powder gun drivers available. Pre-shot sample characterization is possible using neutron diffraction at the Lujan Center.

The deadline for WNR and Lujan proposal submission is 5 p.m., March 2 (MDT). The deadline for FY19 pRad proposals is 5 p.m., March 1 (MDT). The Program Advisory Committees (PAC) will meet to review proposal presentations the week of March 19.

Detailed information about the proposal process is available on the [LANSCE Proposal webpage](#).

Los Alamos National Laboratory

[www.lanl.gov](http://www.lanl.gov)

(505) 667-7000

Los Alamos, NM

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