



Call for Proposals: Radiation Effects at LANSCE 2024 Run Cycle

The Los Alamos Neutron Science Center (LANSCCE) is issuing a Call for Proposals for Radiation Effects work at the Weapons Neutron Research (WNR) Facility for the upcoming run cycle from September 3, 2024 to December 22, 2024.

The LANSCE/WNR call for Radiation Effects proposals is now open.

Deadline for proposals: Monday, **April 22, 2024** 5:00 pm (MDT)

The WNR facility provides neutron and proton beams for radiation effects research. Neutron beams with energies ranging from about 0.1 MeV to more than 600 MeV are produced in Target 4 (an unmoderated tungsten spallation source) using the 800 MeV proton beam from the LANSCE LINAC. The 30-deg flight paths (ICE-I and ICE-II) provide a neutron spectrum that is very similar to the neutron spectrum produced by cosmic rays striking the atmosphere.

In the Target-2 area (Blue Room), samples can be exposed to the proton beam with energies up to 800 MeV either from the LINAC or the proton storage ring (PSR).

Information about the flight paths is available at

<https://lansce.lanl.gov/facilities/Radiation%20Effects/index.php>

Neutron Radiation Effects Proposals

When requesting access to the semiconductor irradiation and testing facilities, please specify which flight path is your first choice (ICE-I or ICE-II).

Note that users planning full cost recovery experiments must also submit a proposal by selecting the "Industry Call" in the LEMS system (see below). These proposals are not reviewed by the Program Advisory Committee (PAC). For technical questions contact Steve Wender (wender@lanl.gov, 505-667-1344). For questions regarding full cost recovery experiments and for administrative questions regarding contracts for these experiments, please contact Valerie Salazar (vsalazar@lanl.gov, 505-667-6797). Beam time allocation for full cost recovery experiments on any beamline is determined on a first come, first served basis and proposals are accepted at all times.

Standard (not paying full cost) Neutron Radiation Effects Proposals

The Radiation Effects subcommittee of the PAC will review all the beam time proposals for radiation effects experiments on electronics, materials, and instruments. Experiments that involve detectors that have ultimate use for basic nuclear physics may be reviewed by the Basic Nuclear Physics subcommittee and proposals having a strong programmatic motivation may be reviewed by the Defense PAC.



Note: The LANSCE cost model can now be found at <https://lansce.lanl.gov/users/become-a-user/user-agreements.php> , where experiments are separated into three categories. If you have questions regarding which category your experiment would be, please contact Steve Wender (wender@lanl.gov, 505-667-1344)

Timeline

The deadline for proposal submission is Monday, April 22, 2024, at 5:00 pm (MDT).

The Rad Effects PAC will meet the week of May 6, 2024.

Instruments/Flight Paths Available in the Current Call for Proposals

Flight Path	Description	Instrument Scientist	Email	Telephone
Flight Path 30L. Neutrons	ICE House, single event effects, semiconductor testing and other measurements	Steve Wender	wender@lanl.gov	505-667-1344
Flight Path 30R. Neutrons	ICE II, single event effects, semiconductor testing and other measurements	Steve Wender	wender@lanl.gov	505-667-1344
Flight Path 60R. Neutrons	Radiation Effects and High Energy Neutron Radiography	Kranti Gunthoti	kranti@lanl.gov	505-551-4906
Target 2 (Blue Room) Proton Irradiations / Sole Use	Radiation effects, proton-induced reaction cross sections, Proton Storage Ring beam, LINAC beam including beam energies other than 800 MeV, sole use.	Kranti Gunthoti	kranti@lanl.gov	505-551-4906
East Port	NOT AVAILABLE FOR EXPERIMENTAL WORK during this run cycle. Neutron activation, neutron irradiation	Nik Fotiadis	Fotia@lanl.gov	505-665-0589

Proposal Submission and Selection

Proposal Submission and Required Documents

All proposals must be submitted using the LANSCE Experiment Management System (LEMS):
<https://lems.lanl.gov/login>.

For proposals that will be reviewed by the PAC, proposers will be expected to give a 10-minute presentation to the PAC with 5 minutes for questions. The PAC will arrange a time for the presentation.

DOE requires that all personnel planning to visit LANSCE be listed in the proposal. Please, contact the User Program Office, lansce-user-office@lanl.gov or 505-667-6797 for assistance with the proposal process or the instrument scientist for technical questions.



Program Advisory Committee Review

Proposals that are incomplete, or that did not follow the formatting guidelines, will not be reviewed and will not be recommended for beam time.

The proposals will be reviewed by the Instrument Scientists to determine their compatibility and feasibility at the facility and by the PAC to be ranked based on their scientific merit. The PAC is an advisory committee to the LANSCCE User Facility Director (LUFD) and is composed of technical experts in the relevant field. It will judge the proposals based upon the criteria stated below:

1. **The quality of the science or measurement being proposed.**
2. **The impact of the science or measurement being proposed.**
3. **The feasibility and readiness of the proposed experiments.**
4. **The need for LANSCCE resources.**

The PAC will provide a grade for the proposals along with recommendations for which proposals should be awarded beam time. The LUFD and representatives from the programs sponsoring experiments at LANSCCE will then schedule beam time. PAC feedback will be provided for all proposals in a timely manner, no later than the beginning of the LANSCCE run cycle.

What to expect if your proposal is accepted.

Proposal Scheduling

Once the LANSCCE accelerator operating schedule for the run cycle is finalized, the Instrument Scientist for each flight path will combine that operating schedule with the PAC grades in order to develop a draft schedule for each area or flight path. These schedules will be communicated to experiment proposers as soon as possible so that you will then be able to make arrangements for the visit, shipment of equipment, user travel, etc.

Final scheduling of ranked proposals depends upon the feasibility of fielding the experiment within the constraints of the LANSCCE operating schedule. Because of the complexity of the LANSCCE accelerator and experimental system, the operating schedule may change over the course of the run cycle, and thus, particular experimental dates cannot be guaranteed.

Note: The Department of Energy (DOE) requires users of any LANSCCE Facility to have a User Agreement (UA) in place between Los Alamos National Laboratory and the user's home institution **before the experiment can be run**. The description and list of existing UA can be found at <https://lansce.lanl.gov/users/become-a-user/user-agreements.php>. If your institution does not have a valid UA in place, please contact the User Office at lansce-user-office@lanl.gov to start the process as early as possible.



Proposals which were recommended for beam time but not executed in a given run cycle must be resubmitted for a later run cycle. The PAC will note the previous recommendations and accordingly grade them highly if they were not executed due to problems with the LANSCCE accelerator.

Obtaining access to LANL

- All visiting users must register three weeks before the scheduled experiment. Non-US citizens must register at least 60 days before their visit. US citizens must bring a picture ID (Driver's license) and proof of citizenship (Passport or Birth Certificate).
- DOE requires additional information to grant non-US citizens access to Los Alamos National Laboratory (LANL). Foreign national visitors must have an approved visit request, present a valid passport and documentation of US legal status and work authorizations. (<https://www.lanl.gov/community/visitors/badging/index.php>).

Classified Proposals Submission

If you plan to submit a classified proposal, please contact Steve Wender (wender@lanl.gov) as early as possible to discuss how to do so.

**We look forward to your submissions,
Radiation and Effect Science User Program**