Call for Proposals: Nuclear Science at the WNR Facility and Lujan Center 2019 Run-Cycle

Proposal Submission

WNR and Lujan Center call for nuclear science proposals is now open.
Deadline: Friday, March 8th, 2019, 5:00 pm (MDT).

The Los Alamos Neutron Science Center (LANSCE) is issuing a Call for Proposals for Nuclear Science at the Weapons Neutron Research (WNR) Facility for the upcoming run cycle June – December 2019.

The Weapons Neutron Research (WNR) and Lujan Center provide neutron and proton beams, as well as detector arrays for basic, applied, radiation effects, and defense-related 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. In the Target-2 area (Blue Room) samples can be exposed to the direct proton beam with energies up to 800 MeV. At Target 1 cold to epithermal neutrons (1 meV - 500 KeV) are produced. Information about the Nuclear Science instruments is available at https://lansce.lanl.gov/facilities/wnr/index.php.

Timeline

The deadline for proposal submission is Friday, March 8, 2019 at 5:00pm (MDT). All non-proprietary proposals will be reviewed by the Nuclear Program Advisory Committee (NPAC). The NPAC will meet the week of March 18, 2019. The proposers are NOT expected to give a presentation like in previous years. Beam time allocation for proprietary and full cost recovery experiments on any beamline is determined on a first come, first served basis.

Instruments/flight paths available in the current call for proposals:

Target 1 (Thermal and Cold neutron source: 1 meV-500 keV):

1. Flight Path 5: General purpose: Alex Long, alexlong@lanl.gov, 505-667-3600
2. Flight Path 12: General purpose: Nik Fotiadis, fotia@lanl.gov, 505-665-9652
3. Flight Path 13: Device for Indirect Capture Experiments on Radionuclides (DICER). Neutron total cross sections of radioactive nuclides: Paul Koehler, koehler@lanl.gov, 505-606-0743
4. Flight Path 14: Detector for Advanced Neutron Capture Experiments (DANCE). Neutron capture cross sections on small samples of stable, rare, or radioactive nuclides and measurements of gamma-ray emission spectra: John Ullmann, ullmann@lanl.gov, 505-667-2517

Target 4 (High-energy neutron source: 1-600 MeV):

1. Flight Path 90L: Fission, Time-Projection Chamber (TPC): Shea Mosby, smosby@lanl.gov, 505-665-5414

2. Flight Path 15L: 20 m and 90 m stations, neutron outputs, Chi-Nu: Matt Devlin, devlin@lanl.gov, 505-665-0421
3. Flight Path 15R: General purpose, detector testing, LENZ(n,z): Nik Fotiadis, fotia@lanl.gov, 505-665-9652
4. Flight Path 30L: ICE House, single event effects, semiconductor testing and other measurements: Steve Wender, wender@lanl.gov, 505-667-1344
5. Flight Path 30R: ICE-II Single-event effects flight semiconductor testing and other measurements: Steve Wender, wender@lanl.gov, 505-667-1344
6. Flight Path 60R: High Energy Neutron Radiography: Nik Fotiadis, fotia@lanl.gov, 505-665-9652
7. East Port: Neutron activation, neutron irradiation: Michael Mocko, mmocko@lanl.gov, 505 667-0628

Target 2 (Blue Room) Proton irradiations:

Radiation effects, proton-induced reaction cross sections, Lead Slowing-Down Spectrometer, PSR beam, Linac beam: Michael Mocko, mmocko@lanl.gov, 505 667-0628

Proposal Submission and Selection

Proposals are reviewed by flight path scientists for technical feasibility and safety issues, then reviewed for scientific merit and program relevance by the Nuclear Program Advisory Committee (NPAC). Be aware that the NPAC review will **NOT** have a presentation portion by the PI like in all previous years. Please write your proposal clearly to leave no questions for the reviewers.

When submitting your requested beam days make your request on the assumption that LANSCE intends to run at approximately 4.4 uA or 100 Hz. It is possible that only 1.8 uA or 40 Hz may be available.

Unclassified Proposal Submission

Unclassified proposals must be submitted using the LANSCE Experiment Management System: https://lems.lanl.gov/login. Users need to create an account first. If you have an account in the old LANSCE proposal portal please use the "Forgot your Password?" to reset your password and access your account in the new system.

Please, contact the User Program Office, lansce-user-office@lanl.gov, or 505-665-9967 for assistance or if you have questions.

Note: The Department of Energy (DOE) requires users of any LANSCE Facility to have a User Agreement (UA) in place between Los Alamos National Laboratory and the user's home institution. The UA description can be found at https://lansce.lanl.gov/users/become-a-user/user-agreements.php.

Important: Make sure all PIs, Co-PIs, and participants (including citizenship) are listed in the proposal. The US Department of Energy (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

Unclassified versions of classified proposals must be submitted using the LANSCE Experiment Management System: https://lems.lanl.gov/login. To submit a classified proposal, please contact Liz Melton (ejm@lanl.gov).

All classified proposals are required to have had classification levels appropriately determined and all submitted documents should be appropriately marked.

Neutron Radiation Effects Proposals

When requesting access to the semiconductor irradiation and testing facilities at the ICE Houses, please specify which flight path is your first choice (ICE House or ICE-II). Note that proprietary users must also submit a proposal, though these proposals are not reviewed by the NPAC. For technical questions contact Steve Wender (wender@lanl.gov, 505-667-1344). For administrative questions on industry contracts in these flight paths, please contact Nina Roelofs (nroelofs@lanl.gov, 505-665-9967).

For questions regarding full cost recovery experiments on any other flight path, please contact Matt Devlin (devlin@lanl.gov, 505-665-0421).

Target 2 sole use

Proposals for sole-use experiments on Target 2 (requiring proton beams other than 800 MeV or changes in the PSR) should be discussed with the Target-2 point of contact: Michael Mocko, mmocko@lanl.gov, 505 667-0628.

Technical Questions

For technical questions regarding details involved in fielding experiments or in other types of experiments that could be fielded, please contact Matt Devlin (devlin@lanl.gov, 505-665-0421), the individual instrument scientists, or the User Program Office (lansce-user-office@lanl.gov, or 505-665-9967) who will then refer you to the appropriate expert in your area of interest.

For more information about the Nuclear Science Call for Proposals go to:
https://lansce.lanl.gov/users/become-a-user/proposals.php

We look forward to your submissions,

Nuclear Science User Program

lansce-user-office@lanl.gov