

## **LANSCE is accepting proposals for experiments at the Manuel Lujan Neutron Scattering Center for CY2018 run cycle (June – December 2018).**

**Deadline:** 5 p.m. (MDT) Friday, March 2<sup>nd</sup>, 2018, PAC Review: Week of March 19, 2018

### **Proposal Submission and Scope:**

The Manuel Lujan Neutron Scattering Center invites proposals addressing science of NNSA and LANL programmatic interest for the June – December 2018 run cycle. The Lujan Center beam production operations are fully covered by NNSA programmatic sponsors. Approximately 10-20% of the beam time at Lujan Center is available for compelling scientific proposals from institutions with no programmatic sponsor. In anticipation of LANL becoming a NSUF partner facility in the near future, DOE/NE-related work may request beam time which will be contingent on a successful NSUF funding proposal. Proposals that involve proprietary work or SPP (Strategic Partnership Project) will be considered using a full cost recovery model. The deadline for proposal submission is 5 p.m. (MDT) Friday, March 2<sup>nd</sup>, 2018. Successful proposals will be scheduled between June 2018 and December 2018. Proposals for Nuclear Science research (on Flight Paths 12 and 14) are covered in the Nuclear Science Proposal call.

Lujan Center capabilities to consider for this call are: SMARTS and HIPPO diffractometers, Flight Path 5 for neutron radiography, as well as the Asterix neutron reflectometer and phase contrast imaging capability. More information about these capabilities can be found at <http://lansce.lanl.gov/facilities/lujan/index.php>. For any questions, contact Don Brown ([dbrown@lanl.gov](mailto:dbrown@lanl.gov) or 505-667-7904) or the instrument scientist listed below.

**Asterix:** Neutron reflectometry and phase contrast imaging: Erik Watkins, [ebw@lanl.gov](mailto:ebw@lanl.gov), 505-667-4037

**Flight Path 5:** Neutron imaging/tomography: Adrian Losko, [alosko@lanl.gov](mailto:alosko@lanl.gov), 505-920-3980

**HIPPO:** Neutron time-of-flight powder diffractometer: Sven Vogel, [sven@lanl.gov](mailto:sven@lanl.gov), 505-667-7016

**SMARTS:** Materials research of deformation under stress and temperature, Bjorn Clausen, [clausen@lanl.gov](mailto:clausen@lanl.gov), 505-667-2944

Lujan Center areas of research include the following:

- Microstructural evolution, including texture, phase composition, and dislocations, at ambient and non-ambient conditions (load, temperature, pressure etc.)
- Residual and induced stress, phase transformations
- In-situ phase transformations under P, T, H
- Surface and interfacial structure of materials
- Oxidation and hydriding phenomena at interfaces
- Neutron radiography and tomography, including energy-resolved neutron tomography for isotope mapping and phase contrast imaging
- All materials relevant to NNSA and DOE/NE work can be handled at the Lujan Center, including but not limited to actinides (uranium, Pu etc.), high explosives, and radioactive materials

### **Proposal Selection:**

Submitted proposals will be ranked on:

1. Programmatic relevance and impact
2. Quality of the science being proposed
3. Quality of experiment conception, feasibility with stated resources and requested time
4. Existence of the physical foundations for the proposed research.

Proposers are encouraged to contact Lujan scientists. The proposal text should not exceed two pages. Technical and safety risks specific to the proposed experiment must be identified in the proposal. Proposals must provide a description of the ancillary equipment and justification for the beam time requested. Users are typically responsible for providing samples. All proposals that cover work that is continuing or an extension of work being done during FY18 should note this continuation, i.e. if the work is relevant to deliverables or milestones.

### **Unclassified Proposal Submission:**

Proposals may be submitted to: <https://www.lanl.gov/orgs/lansce/> by 5 p.m. March 2<sup>nd</sup>, 2018. First time users:

click "First-time LANSCE User, Create a new User Account". Once logged in, update your profile if applicable, click on "Create proposal" at the top right of the page and complete the requested information. Please contact the LANSCE User Office, [lansce-user-office@lanl.gov](mailto:lansce-user-office@lanl.gov) for assistance or if you have questions regarding the proposal process or requirements should you receive beam time. For any U.S. Government funded submitters, including LANL staff, the proposal must be reviewed by the appropriate classification authority and be appropriately marked prior to submittal.

**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 <http://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, present a valid passport and documentation of US legal status and work authorizations. (<http://www.lanl.gov/community/visitors/badging/index.php>).

**Classified Proposals Submission:**

Unclassified versions of classified proposals must be submitted using the LANSCE proposal submission: <https://www.lanl.gov/orgs/lansce/>. Classified versions or attachments of such proposals must be sent to Alexine Salazar either electronically on the secure network ([alexine@lanl.gov](mailto:alexine@lanl.gov)) or via appropriate classified mail transmission channels. If the latter is chosen, you must contact Alexine Salazar first to ensure that proper mailing protocols are followed. All classified proposals are required to have classification levels appropriately determined and all submitted documents should be appropriately marked. Please contact Don Brown at [dbrown@lanl.gov](mailto:dbrown@lanl.gov) should you have the need to submit Sigma 15 or 20 material.

**Technical Questions:**

It is strongly encouraged that users work with the scattering science team when developing their proposals. For technical questions regarding details involved in fielding experiments, please contact Don Brown ([dbrown@lanl.gov](mailto:dbrown@lanl.gov)) or the instrument scientists listed in this call. Other questions may be directed to the LANSCE User Office ([lansce-user-office@lanl.gov](mailto:lansce-user-office@lanl.gov)).

**Program Advisory Committee:**

All experiments will be reviewed by the Materials Proposal Advisory Committee (MPAC). The MPAC is an advisory committee to the LANSCE User Facility Director and not a funding committee. The MPAC ranking may be folded into programmatic sponsor's decision-making processes.

We look forward to your submissions,

Lujan Center User Program [lansce-user-office@lanl.gov](mailto:lansce-user-office@lanl.gov)