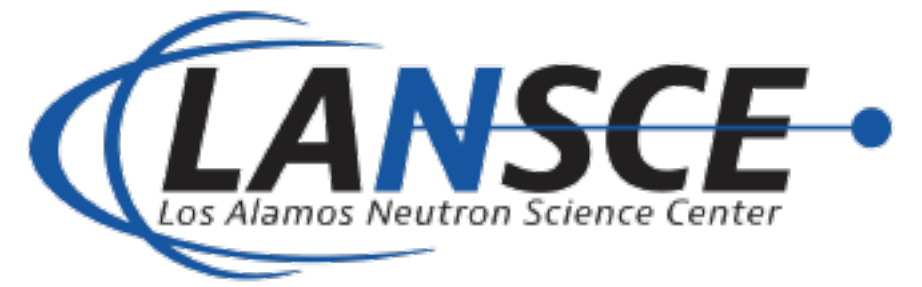


LANSCCE Futures Spring 2021 Workshop Series

developing the technical case for cutting-edge science at the
NNSA-supported LANSCE endstations to 2050 and beyond



Workshop 2 of 4: Scattering Science

Dynamic Radiography | Apr 5 - 6

Scattering Science | Apr 21 | Link is below

Nuclear Science | May 10 - 11

Area A Futures | Jun 1 - 2

This second part of the workshop series is intended to set the baseline for scattering and imaging beam line concepts to be built in the next few years. Those concepts are to be informed by mission need from sponsors as well as what novel approaches for neutron characterization are developed elsewhere.

The workshop will consist of a virtual part and a classified session in the SCC Auditorium, see agenda. The MST-8 Scattering Team will state which capabilities exist now, how neutrons complement the landscape of other available characterization tools (X-rays, electrons etc.), and some ideas for new instruments. Program leaders will provide information about road maps, data needs, and material science developments of current and potential new sponsors. Ultimately this information will be merged into novel instrument concepts directly addressing capability needs of programs supported at LANL. These instrument concepts are to be developed in more detail in follow-up workshops focused on particular concepts.

Link to the open portion of the workshop:

<https://lanl-us.webex.com/lanl-us/j.php?MTID=mc919a78dae43643b83ef6ef09743ffec>



LANSCCE Futures Spring 2021 Workshop Series - Scattering Science 4/21/2021

all presenters are from LANL unless otherwise indicated

Webex link: <https://lanl-us.webex.com/lanl-us/j.php?MTID=mc919a78dae43643b83ef6ef09743ffec>

Welcome & LANL Materials Mission

- | | | |
|------|------------------------|--|
| 8:30 | all attendees | Login |
| 8:35 | M. Furlanetto/S. Mosby | Welcome & goals of the workshop series |
| 8:40 | John Sarrao | LANL Materials Mission |

LANSCCE Existing Capabilities and Opportunities

- | | | |
|------|----------------|---|
| 9:00 | Sven Vogel | Neutron Diffraction |
| 9:15 | Alexander Long | Energy-resolved and Fast (MeV) Neutron Radiography |
| 9:30 | Erik Watkins | Cold Neutron Applications: Reflectometry, Imaging, SANS |
| 9:45 | | Break |

Trends and Novel Concepts in Neutron Beamlines Worldwide

- | | | |
|-------|--------------------|---|
| 10:00 | Anton Tremsin/UCB | Trends in Imaging Beamlines Worldwide |
| 10:15 | Robin Woracek/ESS | Trends in Engineering Scattering Beamlines Worldwide |
| 10:30 | Cev Noyan/Columbia | Opportunities in Material Characterization by Neutron Diffraction |
| 10:45 | Srinivasan Iyer | Office of Science Programs and U.S. Neutron User Community |

Discussion of Neutron Characterization Opportunities

- | | | |
|-------|---------------|--|
| 11:00 | all attendees | Discussion of Neutron Characterization Opportunities |
| 11:45 | | Lunch Break |

Scintillators/Detectors & Nuclear Energy

- | | | |
|-------|-----------------------|---|
| 12:45 | Donnie Hornback/NA-22 | NA-22 Mission Needs for Pulsed Neutrons |
| 13:00 | Blas Uberuaga | Scintillator Discovery and Optimization: Progress and Needs |
| 13:15 | Jeph Wang | Time-resolved Neutron Radiography Through a SIFaN Instrument. |
| 13:30 | Stu Maloy | Neutron Characterization of Irradiated Structural Materials |
| 13:45 | Rory R. Kennedy/NSUF | The Nuclear Science User Facility Program |
| 14:00 | Josh White | Material Characterization Needs of Fuel Programs |
| 14:15 | | Break |

Other LANL Programs

- | | | |
|-------|--------------|---|
| 14:30 | Hongwu Xu | Neutrons for LANL Geoscience Mission |
| 14:45 | Terry Salyer | Explosive Characterization Needs of the LANL Aging & Lifetimes Program through Neutron Scattering and Imaging at LANSCE |
| 15:00 | Rod Borup | LANL Fuel Cell Program |
| 15:15 | | End of unclassified part |

Classified Part: Weapons Programs (SCC Auditorium)

- | | | |
|-------|----------------|--|
| 16:00 | Don Brown | Opportunities to Study Classified Components |
| 16:15 | Eric Brown | Weapons Program Materials Needs |
| 16:30 | Bob Hackenberg | Aging and Corrosion of Metals and Alloys |
| 16:45 | James Hunter | Non-destructive testing at LANL: Capabilities and Gaps |
| 17:00 | Pat Hochanadel | Uranium Modernization |
| 17:15 | Erica Gjersing | W93 and Future Systems |
| 17:30 | | Adjourn |