

## Unlocking Materials' Secrets: Neutron Scattering for Multi-Scale Characterization Workshop

Agenda as of August 8, 2024

<b>Event contact</b>	Host: Jeff Bunn Admin: Abby Forgety, 865-341-3747 (office); forgetyal@ornl.gov		
<b>August 19, 2024</b>			
<b>Time</b>	<b>Event</b>	<b>Lead</b>	<b>Place</b>
8:00 – 8:30am	Event Registration	Abby Forgety	Lobby, 8600
8:30 – 8:45am	Opening Remarks	Jon Taylor	C156, 8600
8:45 – 9:00am	Workshop Overview	Jeff Bunn, ORNL	C156, 8600
9:00 – 9:30am	Introduction to Neutron Scattering in Materials Science and Engineering	Andrew Payzant, ORNL	C156, 8600
9:30 – 10:00am	Basics of Neutron Sources and Instrumentation	Matt Frost, ORNL	C156, 8600
10:00 – 10:20am	Break – Coffee and Drinks	All	C150, 8600
10:20 – 11:00am	Residual Stress Mapping through Neutron Diffraction	Jeff Bunn, ORNL	C156, 8600
11:00 – 12:00pm	Title TBD – Experience with neutron diffraction in welded materials for residual stress/microstructure	Zhenzhen Yu, Colorado School of Mines	C156, 8600
12:00 – 1:30pm	Working lunch: New Engineering Materials Instruments planned for STS	Saurabh Kabra, ORNL	C156, 8600
1:30 – 2:10pm	Small Angle Neutron Scattering (SANS)	Lisa DeBeer-Schmitt, ORNL	C156, 8600
2:10 – 3:00pm	Title TBD	Ying Yang, ORNL	C156, 8600
3:00 – 3:20pm	Break – Coffee and Drinks	All	C156, 8600
3:00 – 5:30pm	SNS and HFIR Tours	HFIR Tour Guides: SNS Tours: Andrew Payzant, ORNL	C156, 8600
6:00 – 8:00pm	Dinner (Heavy Hors D'oeuvres) Poster Session Opportunity for attendees to show their science and local SMEs to comment on how Neutrons could be used in their research	All	Lobby, 8600

## August 20, 2024

Time	Event	Lead	Place
8:30 – 8:40am	Introduction to Day 2	Jeff Bunn, ORNL	C156, 8600
8:40 – 9:20am	Neutron Imaging	Hassina Bilheux, ORNL	C156, 8600
9:20 – 10:20am	Probing Multiscale Mechanics in Structures Using Neutron Scattering and Imaging	Adrian Brugger, Columbia University	C156, 8600
10:20 – 10:50am	Industrial applications & discussion	Ke An (IAP), ORNL	C156, 8600
10:50 – 11:50am	Invited Talk of Neutrons in industry – Title TBD	Iuliana Cernatcu, Pratt & Whitney	C156, 8600
11:50 – 1:20pm	Working lunch: User Office Discussion of Access Mechanisms	ORNL User Office, Speaker TBD	C150, 8600
1:20 – 1:40pm	Group Photo	Genevieve Martin	8600
1:40 – 2:40pm	Engineering Materials Panel	Instrument Scientists, ORNL	C156, 8600
2:40 – 3:40pm	Break – Coffee and Drinks	All	C156, 8600
3:40 – 5:00pm	Q and A community discussion– what tools/techniques/instruments/software do you need? Want?	Iran Thomas? Number of ppl invited	C156, 8600
5:00pm	Adjourn – informal dinner @ Calhouns	Jeff Bunn, ORNL	C156, 8600

### Speaker list:

Jeff Bunn, Neutron Scattering Scientist, Oak Ridge National Laboratory  
 Andrew Payzant, Group Leader-Materials Engineering, Oak Ridge National Laboratory  
 Matt Frost, Research Scientist, Oak Ridge National Laboratory  
 Zhenzhen Yu, Associate Professor, Colorado School of Mines  
 Saurabh Kabra, Instrument Systems, Oak Ridge National Laboratory  
 Lisa DeBeer-Schmitt, Neutron Scattering Scientist, Oak Ridge National Laboratory  
 Ying Yang, Microstructural Evolution Group Member, Oak Ridge National Laboratory  
 Hassina Bilheux, Neutron Scattering Scientist, Oak Ridge National Laboratory  
 Adrian Brugger, Associate Professor, Columbia University  
 Ke An, Neutron Scattering Scientist, Oak Ridge National Laboratory  
 Iuliana Cernatcu, Senior Technical Fellow, Pratt and Whitney  
 ORNL User Office, Speaker TBD