August 11-14, 2025
Location: Crowne Plaza Downtown Knoxville

Monday, August 11: Workshop Day 1

8:00-8:30 a.m.	Breakfast available for all workshop attendees Location: Salon C
8:30 a.m. - 5:00 p.m.	Workshop 1: Machine learning basics and how it can help neutron scattering analysis Organizers: Thomas Proffen, Yongqiang Cheng and Massimiliano Lupo Pasini Location: Salon A
8:30 a.m. - 5:00 p.m.	Workshop 2: Exploring the Dynamics in Soft Materials with Neutron Scattering Organizers: Naresh Osti and Laura Stingaciu Location: Salon B
8:30 a.m. - 5:00 p.m.	Workshop 3: Training on BEAMER and TRACER for electron beam lithography Organizers: Bernadeta Srijanto (CNMS) and Kaustubh Vyas (GenISys) Location: The Tech Room

Tuesday, August 12: Main Meeting Day 1

8:00-8:30 a.m.	Registration Open / Breakfast available Location: Salon C
8:30 a.m. - 7:30 p.m.	Exhibits open Location: Salon C
8:30 a.m. - 12:00 p.m. **Plenary Session** Location: Summit	
8:30-8:45	Welcome / Introduction Hillary Smith, 2025 SHUG EC Chair Masoud Mahjouri-Samani, 2025 CNMS UEC Chair
8:45-10:00	ORNL Leadership talks
10:00-10:45	U.S. Department of Energy Office of Science Leadership Talk
10:45-11:00	Morning break
11:00-12:00	Plenary speaker: Jon-Paul Maria, Pennsylvania State University

	Ferroelectrics Everywhere: New Material Discovery by Engineered Instabilities		
12:00 - 1:30 p.m.	Lunch on your own		
1:30 - 4:00 p.m. **Parallel Sessions**			
	Hard matter: Quantum, electronic, semiconducting materials Location: Summit Chairs: Allen Scheie and Masoud Mahjoury	**Soft matter, polymers, and complex fluids** Location: Tech Room Chairs: Nairiti Sinha and Katie Weigandt	**AI and Data Science** Location: Salon A/B Chairs: Wonhee Ko and Weiwei Xie
1:30-2:00	Invited talk: Jennifer Sears, Brookhaven National Lab *Spin splitting in a chiral magnet*	Invited talk: Matt Helgeson, UC Santa Barbara *Complex thermodynamics, structure and dynamics of mixed surfactant "frenemies" on highly curved interfaces*	Invited talk: De-en Jiang, Vanderbilt University *Case Studies of Machine Learning in Nano and Materials Sciences*
2:00-2:30	Invited talk: Madalynn Marshall, Kennesaw State University *Pentagonal all-in-all-out antiferromagnetic chains in NaMn6Bi5*	Invited talk: Rajeev Kumar, Oak Ridge National Laboratory *Automated Analysis of Time-Dependent Specular Neutron Reflectometry from Thin Films of Polymers Using Neural Networks*	Invited talk: Mathieu Doucet, Oak Ridge National Laboratory *Recent AI projects for neutron data analysis and automation at SNS*
2:30-3:00	Invited talk: Peter Abbamonte, U of Illinois Urbana-Champaign *Observation of Heeger's susceptibility divergence near the CDW transition in $ErTe_3$ with momentum-resolved EELS*	Contributed talk: Ria Corder, University of Tennessee *Using SANS to characterize how non-adsorbing polymers affect rheology and microstructure of dense suspensions*	Invited talk: Samin Chowdhury, Purdue University *Unsupervised Subspace Decomposition for Fast Hyperspectral Neutron Tomograph*
3:00-3:15	Afternoon break		

3:15-3:45	Invited talk: Hang Chi, University of Ottawa *Engineering of magnetic chalcogenide interfaces guided by polarized neutron reflectometry*	Invited talk: Tad Koga, Stony Brook University	Invited talk: Thomas Maier, Oak Ridge National Laboratory *AI Enabled Modeling of Correlated Quantum Matter*
3:45-4:05	Contributed talk: Liangbo Liang, Oak Ridge National Laboratory *Exascale transport simulations for the understanding of the switching mechanism in atomically thin memristors*	Contributed talk: Chengyun Hua, Oak Ridge National Laboratory *Complexity in the medium-range order as a polyvalent liquid metal*	Contributed talk: Panchapakesan Ganesh, Oak Ridge National Laboratory *An Extreme-Scale Multi-Fidelity Computational Active Learning Paradigm Towards Realizing Autonomous Synthesis*
4:05-4:25	Contributed talk: Xianghan Xu, University of Minnesota, Twin Cities *Using neutron to probe magnetic symmetries of quantum materials*	Contributed talk: Michael Bockstaller (Carnegie Mellon University) *Neutron Scattering Insights Into Molecular Parameters Governing Hyperuniformity in Brush-Based Hybrid Materials*	Contributed talk
4:30 - 5:30 p.m.	Poster Slam: Lightning Talks by poster presenters Location: Summit		
5:30 - 7:30 p.m.	Researcher poster presentations and reception in lieu of dinner Location: Summit		

Wednesday, August 13: Main Meeting Day 2

8:00-8:30 a.m.	Registration Open / Breakfast available Location: Salon C
8:30 a.m. - 5:00	Exhibits open

p.m.	Location: Salon C		
8:30 a.m. - 12:00 p.m. **Plenary Session** Location: Summit			
8:30-8:45	Welcome - Day 1 recap and Day 2 agenda Hillary Smith, 2025 SHUG EC Chair Masoud Mahjouri-Samani, 2025 CNMS UEC Chair		
8:45-9:45	Plenary speaker: Matthew McDowell, Georgia Tech *Characterizing Materials and Interfaces in Solid-State Batteries*		
9:45-10:45	Plenary speaker: Amy Xu, Louisiana State University *From Phase Separation to Vaccine Design: Small-Angle Scattering in Biomolecular Research*		
10:45-11:00	Morning break		
11:00-12:00	Plenary speaker and panel discussion: Michelle Dolgos, Oak Ridge National Laboratory		
12:00 - 1:30 p.m.	SHUG and CNMS UEC Town Hall and working lunch Hillary Smith, 2025 SHUG EC Chair Masoud Mahjouri-Samani, 2025 CNMS UEC Chair Presentation of poster awards and outstanding staff awards		
1:30 - 3:30 p.m. **Parallel Sessions**			
	Hard matter 2: Energy materials Location: Summit Chairs: Hillary Smith and Nina Balke	**Biology and Life Sciences** Location: Tech Room Chairs: Anne-Frances Miller and Lynnicia Massenburg	**Emerging Research and Multimodal Techniques** Location: Salon A/B Chairs: Ben Frandsen and John Wang
1:30-2:00	Invited talk: Michael Toney, University of Colorado Boulder *Understanding static and dynamic local structure in Hybrid Metal Halide*	Invited talk: David Hoogerheide, NIST Center for Neutron Research *Advances in automated sample preparation for neutron reflectometry*	Invited talk: Kory Burns, University of Virginia *(Dis)order in the court: Probing Imperfections in Quantum Materials with Monochromated EELS*

	Perovskites	*experiments*	
2:00-2:30	Invited talk: Naresh Osti, Oak Ridge National Laboratory	Invited talk: Sarah Keane, University of Michigan	Invited talk: Jeffrey Richards, Northwestern University *Nanoscale Structure of Lithium-ion Battery Cathodes Probed Using Contrast Variation Neutron Scattering*
2:30-2:50	Contributed talk: Gang Wu, Washington University in St. Louis *Atomically Dispersed Metal sites for Electrochemical Energy Conversion*	Contributed talk: Chathuddasie Amarasinghe, University of Tennessee *The Role of Non-Equilibrium Ribosomal Dynamics in Facilitating Nucleoid Separation*	Contributed talk: Yi-Hsin Liu, National Taiwan Normal University *Unveiling Magnetic Excitations in Low-Dimensional Mn-Doped II–VI Semiconductors*
2:50-3:05	Afternoon break		
3:05-3:35	Invited talk: David Mandrus, University of Tennessee *Creating new THz Photodetectors with Topological Semimetals*	Invited talk: Sharon Weiss, Vanderbilt University *Nanostructured silicon optical biosensors: From on-chip to paper-based diagnostics*	Invited talk: Shengxi Huang, Rice University
3:35-3:55	Contributed talk	Contributed talk	Contributed talk
4:00 - 5:00 p.m.	Topical Town Halls / Poster Sessions		
	Town Hall: Towards a More Robust and User-Friendly Soft Matter Sample Environment Organizers: Luke Heroux (ORNL), Paul Butler (NIST), and Katie Weigandt (NIST) **Location: Tech Room**	Town Hall: Future magnetic field sample environments Organizers: Matt Stone and Stuart Calder **Location: Salon A/B**	Poster Session: CNMS **Location: Summit**

4:00 - 6:00 p.m.	Exhibitor take down

Thursday, August 14: Workshop Day 2

8:00-8:30 a.m.	Breakfast for all workshop attendees Location: Salon C
8:30 a.m. - 5:00 p.m.	Workshop 4: Second Target Station Satellite Meeting Organizer: Saurabh Kabra Location: Salon A/B
8:30 a.m. - 5:00 p.m.	Workshop 5: Data processing of neutron total scattering and how to avoid pitfalls along the way Organizer: Yuanpeng Zhang Location: The Tech Room
8:30 a.m. - 5:00 p.m.	Workshop 6: PFM Master (Piezo Force Microscopy) Held at ORNL Organizers: Neus Domingo, Sabine Neumayer, Stephen Jesse Location: ORNL, Building 8600 (SNS), Room C-152 - 8:00-8:30 Board the bus at the Crowne Plaza - 8:30-9:30 Bus from Crowne Plaza to ORNL - 5:00 Bus from ORNL to Crowne Plaza
8:30 a.m. - 1:45 p.m.	ORNL Tours ● 8:00-8:30 Board the bus at the Crowne Plaza ● 8:30-9:30 Bus from Crowne Plaza to ORNL ● 9:30-11:30 Tours: ○ Tour 1: CNMS (Chestnut Ridge + Main Campus) ○ Tour 2: SNS and HFIR ● 11:30 Lunch on your own at ORNL ● 12:30 Bus from ORNL to Crowne Plaza