

## Wednesday, 6/24/2026

- 8:00 am – Badging (Bldg 101, SUSC)
- **9:00 am – 9:20 am Welcome Remarks, Robert Konik (Director of CMPMS, BNL) and Judith Yang (CFN, BNL)**
- **9:20 am – 10:00 am Featured Opening Talk, Mingzhao Liu (C2QA, BNL)**  
**Title: Developing and understanding new material platforms for superconducting qubit scaling up**
- 10:00 am – 10:15 am Coffee Break (provided)
- **Session 1: Advances in Cryo-EM instrumentation**
  - 10:15 am – 10:50 am Peter Denes (LBNL)**  
Title: Towards an Ultra-Stable, Ultra-Cold Transmission Electron Microscope
  - 10:50 am – 11:25 am Cameron Johnson (Bruker AXS)**  
Title: Stable Liquid-Helium-Cooled STEM with Double-Tilting
  - 11:25 am – 12:00 pm Naoya Shibata (Univ of Tokyo)**  
Title: Recent Progress in the Development of Magnetic-Field-Free Cryogenic Atomic-Resolution Electron Microscope
- 12:00 pm – 1:00 pm Lunch & Industry spotlight presentation (Thermo-Fischer)
- **Session 2: Cryo-EM for Quantum Materials Imaging**
  - 1:00 pm – 1:35 pm David Muller (Cornell Univ)**  
Title: Three-dimensional, high-resolution and dose-efficient imaging with cryogenic electron ptychography
  - 1:35 pm – 2:10 pm Shelly Conroy (Imperial College London)**  
Titel: Cold Correlations: Microscopy from Liquid Nitrogen to Liquid Helium
  - 2:10 pm – 2:45 pm Joachim Dahl Thomsen (Forschungszentrum Jülich)**  
Title: Cryo-TEM of quantum materials and electrically contacted devices
- 2:45 pm – 3:00 pm Coffee Break (provided)
- **Session 3: Cryo-EM for Energy/Beam-Sensitive Materials**

**3:00 pm – 3:35 pm Michael Zachman (ORNL)**

Title: Enabling Multi-scale Cryo-EM of Sensitive and Low-Contrast Interfacial Materials in Electrochemical Devices

**3:35 pm – 4:10 pm Renae Gannon (NLR)**

Title: Advancing Multiscale Cryo-EM Workflows for Functional Energy Materials

**4:10 pm – 4:45 pm Jianguo Wen (ANL)**

Title: Direct Cryo-EM Observation of Non-Equilibrium Ice Phase Transformations

**Thursday, 6/25/2026**

• **Session 4: Cryo-STEM/EELS for Quantum Materials I**

**9:00 am – 9:35 am Miaofang Chi (ORNL)**

Title: Cryogenic STEM and EELS: New Opportunities for 2D Materials Research

**9:35 am – 10:10 am Menglin Zhu (MIT)**

Title: Dynamic Antiferroelectric Transformations Revealed by In Situ Microscopy

**10:10 am – 10:45 am Robert Klie (Univ of Illinois, Chicago)**

Title: Analyzing Functional Materials using Aberration-Corrected Cryo-STEM

• 10:45 am – 11:00 am Coffee break (provided)

• **Session 5: Cryo-STEM/EELS for Quantum Materials II**

**11:00 am – 11:35 am Ismail El Baggari (Univ of British Columbia)**

Title: High resolution electron microscopy with liquid helium: status, updates, and applications

**11:35 am – 12:10 pm Maureen Joel Lagos Paredes (McMaster Univ)**

Title: Electron spectroscopy studies of collective excitations in quantum materials

• 12:10 pm – 1:10 pm Lunch & Industry spotlight presentation (TESCAN)

• **Session 6: Cryo-EM for Soft Materials**

**1:10 pm – 1:45 pm Yue Yu (Chan Zuckerberg Institute for Advanced Biological Imaging)**

Title: Laser phase plate for phase-contrast imaging

**1:45 pm – 2:20 pm Stephanie Ribet (LBNL)**

Title: At the intersection of cryo- and computational electron microscopy: characterizing soft materials with 4D-STEM

- 2:25 pm – 2:35 pm Group Photo
- **2:40 pm – 3:30 pm Panel Discussion**
- 3:35 pm – 5:00 pm Poster session (coffee provide)
- 5:15 pm Dinner shuttle departure (from Bldg 101)
- 5:45 pm – 8:00 pm Workshop Dinner (provided)

**Friday, 6/26/2026**

• **Session 7: In situ TEM**

**8:30 am – 9:05 am Frances M. Ross (MIT)**

Title: TBA

**9:05 am – 9:40 am Haimei Zhang (LBNL)**

Title: Revealing Atomic Dynamics at Solid–Liquid Interfaces through Liquid-Phase Electron Microscopy and Cryo-EM

**9:40 am – 10:15 am Meng Li (BNL) TBA**

- 10:15 am – 10:30 am Coffee break (provided)

• **Session 8: Cryo-EELS**

**10:30 am – 11:05 am Steffi Woo (ORNL)**

Title: Localized Excitonic Response in van der Waals Semiconductors below 100K

**11:05 am – 11:40 am David McComb\* (OSU)**

Title: TBA

- 11:40 am – 11:55 am Closing remarks
- Afternoon Facility Tour (optional), refreshment will be provided.