

- 8:30—8:35 Ashwin Shahani (University of Michigan)  
*Opening Remarks*
- 8:35—9:10 Tao Sun (Argonne National Laboratory)  
*High-speed X-ray Imaging and Diffraction at the 32-ID-B Beamline of the Advanced Photon Source*
- 9:10—9:45 Lianyi Chen (Missouri University of Science and Technology)  
*Characterizing the Dynamics of Laser Powder Bed Fusion Additive Manufacturing Processes by High-speed X-ray Imaging*
- 9:45 – 10:20 Robert Suter (Carnegie Mellon University)  
*Tomographic Studies for Reliable Additive Manufacturing of Metals*
- 10:20—10:50 Break and workshop picture
- 10:50—11:25 Nikhilesh Chawla (Arizona State University)  
*In Situ Materials Science: Probing Microstructural Evolution of Metallic Materials in Real Time*
- 11:25—12:00 Peter Voorhees (Northwestern University)  
*Creating Materials Databases Using X-ray Tomography*
- 12:00—1:00 Lunch
- 1:00—1:35 Amy Clarke (Los Alamos National Laboratory)  
*In Situ Imaging of Metallic Alloy Solidification Dynamics for Advanced Manufacturing*
- 1:35—2:10 Ashwin Shahani (University of Michigan)  
*Probing the Growth Dynamics of Periodic Crystals and Quasicrystals in Real Time*
- 2:10—2:45 Michael Dudley (Stony Brook University)  
*Evolution of Defects during the Growth of SiC Substrates and Epilayers*
- 2:45—3:15 Break
- 3:15—3:50 Zonghai Chen (Argonne National Laboratory)  
*Unveiling Failure Mechanism of Lithium-ion Batteries*
- 3:50—4:25 Jordi Cabana (University of Illinois at Chicago)  
*Visualization of Electrochemical Reactions in Battery Materials with X-ray Microscopy*
- 4:25—5:00 Feng Lin (Virginia Tech)  
*Understanding the Surface Chemistry of Battery Materials Using Synchrotron X-ray Spectroscopy*
- 5:00—5:15 Xianghui Xiao (Argonne National Laboratory)  
*Concluding Remarks*