

CHARACTERIZATION CHARACTERIZATION OF MATERIALS THROUGH HIGH RESOLUTION IMAGING

This symposium will provide a venue for presentations regarding the use of coherent diffraction imaging techniques (x-ray and electron diffraction imaging, ptychography, holography) and phase contrast imaging techniques for high-resolution characterization in all classes of materials. Additionally, modeling and simulation methods that are relevant to nanoscale imaging techniques will be included.

Areas of interest include, but are not limited to:

- 1. All x-ray based techniques including Bragg CDI, Fresnel CDI, ptychographic CDI, propagation phase contrast imaging, interferometry imaging, and analyzer based phase-contrast imaging
- 2. All electron based techniques including ptychography and electron CDI
- 3. Computational and simulation efforts with overlap in high resolution imaging.
- 4. Big data analytics and machine learning methods to accelerate data abstraction and improve image quality
- 5. All structural and functional materials systems needing high resolution imaging
- 6. Industrial applications
- 7. Development of new techniques and new sources

ORGANIZERS

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SYMPOSIUM SPONSORS

TMS Structural Materials Division TMS Advanced Characterization, Testing, and Simulation Committee

Questions? Contact programming@tms.org