

# SUBMIT AN ABSTRACT BY JULY 1 FOR THE FOLLOWING TMS2023 SYMPOSIUM:

### **CHARACTERIZATION**

## **Neutron and X-ray Scattering in Materials Science**

Scattering is a powerful and indispensable tool for the study of advanced materials. Because of their unique advantages, scattering studies often yield unique insights into the structure and dynamics of materials that are not accessible by other means. This symposium solicits presentations covering emerging topics that utilize scattering techniques, including both neutron and x-ray scattering. The symposium will bring together researchers from the scattering and materials communities to address how scattering techniques can be applied to current problems in materials science.

Topics of interest include, but are not limited to:

- Structure determination of complex systems
- Phonons, lattice thermal transport, lattice effects on stability, anharmonicity
- Magnetism, spin dynamics, magnons, and other collective excitations and their interactions
- Microstructure characterization and control
- Residual stress mapping and imaging in engineering components
- Phase transformation kinetics and fundamental issues of nucleation and growth
- Structure and property relationships in soft matter
- Neutron and X-ray instrument development and modeling
- Theory and modeling of scattering process and material response

#### **ORGANIZERS**

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### SYMPOSIUM SPONSORS

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