ACCELERATING DISCOVERY FOR MECHANICAL BEHAVIOR OF MATERIALS 2024

TMS SPECIALTY CONGRESS 2024

JUNE 16-20, 2024
Cleveland Hilton
Cleveland, Ohio, USA

REGISTER NOW

Accelerating Discovery for Mechanical Behavior of Materials 2024, a brand new TMS event, will encompass cutting-edge research and development efforts surrounding mechanical behavior over a wide range of material types, with an emphasis on the underlying microstructural causes. This meeting will highlight the different techniques and methodologies that research groups are developing to understand the multi-scale mechanisms used in the explore mechanical behavior in microstructurally and compositionally complex alloys. This unique platform will promote deep discussions and collaborations across industry, government, and academia.

Accelerating Discovery for Mechanical Behavior of Materials 2024 will include the following specific technical topics:

Accelerated Approaches
- Accelerating Materials Discovery via Machine Learning
- Autonomous Characterization & Property Evaluation

Design
- Multi-Objective Optimization of Materials
- Co-Optimization of Materials and Topology Defects by Design

Machine Learning
- Discovering Constitutive Relationships using Machine Learning
- Fusion of Mechanical Testing & Characterization Techniques to Accelerate Materials Development

In-Situ and In-Process of Extreme Environments
- In-Situ Testing and Characterization
- In-Process and Operando Control of Mechanical Properties During Processing

Mechanics of Novel Materials
- Mechanical Behavior in Multifunctional Materials
- Mechanics of Biological & Nature-Inspired Systems

And More!

Visit the conference website for publication details.

ORGANIZERS

LEAD ORGANIZER:
- **Aeriel D.M. Leonard**, The Ohio State University

PROGRAMMING CHAIR:
- **Frank Delrio**, Sandia National Laboratories

ORGANIZING COMMITTEE:
- **Brad Boyce**, Sandia National Laboratories
- **Daniel Gianola**, University of California, Santa Barbara
- **John Lewandowski**, Case Western Reserve University
- **Erica Lilleodden**, Fraunhofer Institute for Microstructure of Materials and Systems
- **Pania Newell**, University of Utah
- **Corinne Packard**, Colorado School of Mines

TMS
The Minerals, Metals & Materials Society

Learn more and register at **www.tms.org/MechanicalBehavior2024**