Mechanical Testing of AM Materials

Established testing standards exist for deriving different mechanical properties; however, it has become clear that conventional procedures may not always be applicable to additive manufactured materials due to the nature of the additive fabrication process. Additionally, unique mechanical characteristics and property dependence often exist under different conditions such as geometry, process parameters and post-process procedures.

The Mechanical Testing of AM Materials symposium will cover important topics, such as:

- Applicability of existing test methods to additive manufactured materials
- Development of new test methods, such as small-scale tensile testing, to represent local material performance
- High throughput testing methods for build quality screening
- Properties assessment of miniaturized engineering structures
- Influence of process and post-process parameters on part performance
- Structure-property-performance relationships
- Build size, orientation, and location dependence of mechanical properties
- Characterization of multi-material components