ASTM ICAM2022

ASTM INTERNATIONAL CONFERENCE ON ADDITIVE MANUFACTURING

Research To Application Through Standardization

October 31 – November 4, 2022 | Orlando, FL
JW Marriott Orlando Bonnet Creek Resort & Spa

Submit an Abstract at www.amcoe.org/icam2022

Design, Modeling, Simulation, and Concepts for AM

One of the key success factors to making the most out of Additive Manufacturing (AM) is to utilize freedom of design through techniques such as topology optimization and generative design approaches. Design optimization, stress analysis, thermal modeling, microstructural evolution, and understanding material-process-microstructure-property relationships are critical to reducing the time and cost of AM implementation and improving adoption.

This symposium aims to cover the following topics (but not limited to):
- Design, modeling, and simulation methodologies in AM (such as those enabled by high-performance computing and machine learning)
- Design for additive manufacturing, including processes and post-processing (e.g., post-machining, heat treatment, etc.)
- Topology optimization and reverse engineering (such as for legacy parts)
- Optimization of AM designs and processes (e.g., generative design, digital twins, CAE, etc.)
- Development of AM material-process-microstructure-property relationships, prediction, and control of material properties
- Standards needs for AM design and simulation
- Case studies, industrial use-cases, and applications
- Design of architected materials (e.g., graded materials, cellular materials, etc.)

Symposium Organizers
- **Eujin Pei,**
  Brunel University London, UK
- **David Rosen,** Georgia Institute of Technology, USA
- **Albert To,**
  University of Pittsburgh, USA
- **Andrew Triantaphyllou, The MTC, UK**

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