Technical Program Addendum

Updates as of August 2, 2021

Cancellations

The following cancellations were received following the publication of the final technical program

Monday

Special Session: Data Analytics in AM

Data Analytics in AM I - Optimization of Process, Design and Materials A

2:00 PM: Towards Online Monitoring and Data-Driven Control: A Study of Segmentation Algorithms for Infrared Images of the Powder Bed by Alexander Nettekoven, University of Texas Austin

Applications: Lattices and Cellular

Lattices and Cellular I

2:15 PM: **Investigation of a Unit Cell Optimization Framework for Lattice Structures Based on Triply Periodic Surfaces** by Joseph Fisher, The Pennsylvania State University

Special Session: Wire-fed AM Processes

Wire-fed AM Processes I

2:15 PM: **Preliminary Efforts Using a Fe-10Ni Steel for Wire Arc Additive Manufacturing** by Evan Handler, Naval Surface Warfare Center

Tuesday

Materials

Ceramics, Other II - Glass, Extrusion and Direct Write

8:30 AM: Adaptive Aperture for Accelerating Extrusion Additive Manufacturing: Concept Design and Toolpath Generation by Maxwell Micali, University of California, Berkeley

Modeling

II Toolpaths and Scanning Strategies

8:45 AM: Adaptive Toolpath Planning for Additive Manufacturing through Reduced-order Physical Simulation by Maxwell Micali, University of California, Berkeley

Special Session: Data Analytics in AM

Data Analytics in AM II - Optimization of Process, Design and Materials B

8:45 AM: Data Models for Analytics and Machine Learning in Additive Manufacturing by Paul Witherell, NIST

Data Analytics in AM II - Optimization of Process, Design and Materials B

9:00 AM: Optimization of Support Geometry for Powder Bed Fusion: A Generative Approach by Mugdha Joshi, Missouri University of Science and Technology

Broad Issues in AM

II Robotics, Security and Digitalization

1:30 PM: Impact of 3D Printing in Rapid Evolution of Competitive Robotics Such as World Robotics League byRajeev Dwivedi , STEM and Robotics Academy

Process Development

Volumetric AM

1:30 PM: Investigation of Mechanical Properties of Structures Fabricated by Continuous Volumetric Photopolymerization Based 3D Printing by Yizhen Zhu Arizona State University

Applications:

General II

2:00 PM: Electrodeposition on 3D Printed Carbon MEMS by Joshua Tyler, Oak Ridge Associated Universities

Wednesday

Applications

Lattices and Cellular III

9:00 AM: On Comparative Computational Fluid Dynamics Analysis of Additively Manufactured Triply Periodic Minimal Surface Radially Gyroidal for Heat Sink Application by Willem Groeneveld-Meijer, Pennsylvania State University

Biomedical

1:30 PM: Fabrication of Stretchable Sensors for Biomedical Applications by Srikanthan Ramesh, Rochester Institute of Technology

Special Session

Dimensional and Surface Characterization for Additive Manufacturing II

2:00 PM: Predicting Surface Geometry for Steady-state FFF Printing by Christopher Pannier, University of Michigan – Dearborn

Data Analytics in AM IV - Process Monitoring and Flaw Detection B

2:45 PM: Using Deep Convolutional Neural Networks for Process Shift Detection, Root Cause Isolation and Defect Prediction in Metal Additive Process by Subhrajit Roychowdhury, GE Global Research Center

Presentation Title Changes

The following change was received following the publication of the final technical program

Wednesday

Physical Modeling

Physical Modeling VII Material Modeling B

The title of the presentation by Hui Chen and Wentao Yan is now "Numerical simulation on spattering and denudation of laser powder bed fusion additive manufacturing"