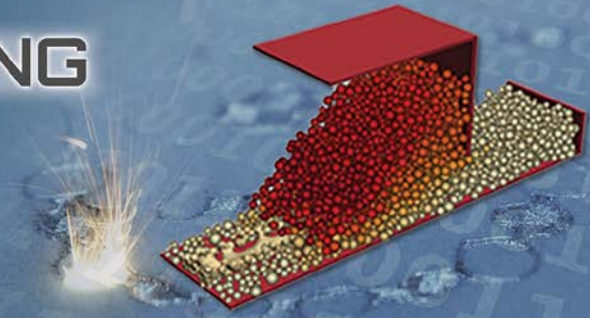


HPC4 MANUFACTURING

Modeling of Powder Dynamics in Metal Additive Manufacturing

August 10-11, 2017



AGENDA

Hilton Austin
500 East 4th Street, Austin, Texas, 78701, USA
August 10-11, 2017

Thursday, August 10, 2017

- 8:00 a.m. Registration and Hospitality** (Location: 4th Floor, Foyer near Salon D)
- 8:30 a.m. Welcome Remarks** (Location: 4th Floor, Salon D)
Robert Ivester, Department of Energy, Advanced Manufacturing Office
- 8:45 a.m. Meeting Scope and Objectives**
Wayne King, Lawrence Livermore National Laboratory
- 9:00 a.m. Keynote – Effects of Particle Surface-Properties on Mechanical Behavior, and Calibration of Discrete Element Method (DEM) Models for Powder Spreading Simulations**
Otis Walton, Lawrence Livermore National Laboratory
- 9:45 a.m. Keynote – Discrete Element Method (DEM) Contact Models for Cohesive Particles**
Stefan Luding, University of Twente, Netherlands
- 10:30 a.m. Break**
- 11:00 a.m. Keynote – Modeling Powder Spreading for Additive Manufacturing**
Mustafa Megahed, ESI Group, Paris
- 11:45 p.m. Working Lunch** (Location: 4th Floor, Room 406)
- 1:00 p.m. Plenary Introduction – What is Needed from Models for Powder Spreading**
(Location: 4th Floor, Salon D)
Fred Higgs, Rice University
- 1:20 p.m. Breakout Session 1 – What is Needed from Models for Powder Spreading**
(Location: Rooms 408 and 410)
All Participants



Thursday, August 10, 2017 – Continued

- 2:20 p.m. Plenary Introduction – Key Parameters and Issues: Flowability, Spreadability, Stratification**
(Location: 4th Floor, Salon D)
Jeremy Lechman, Sandia National Laboratories
- 2:40 p.m. Breakout Session 2 – Key Parameters and Issues: Flowability, Spreadability, Stratification**
(Location: Rooms 408 and 410)
All Participants
- 3:40 p.m. Break**
- 4:00 p.m. Plenary Introduction – Key Parameters and Issues: Effects of Particle Size, Particle Size Distribution, and Particle Morphology** (Location: 4th Floor, Salon D)
Justin Whiting, National Institute of Standards and Technology
- 4:20 p.m. Breakout Session 3 – Key Parameters and Issues: Effects of Particle Size, Particle Size Distribution, and Particle Morphology** (Location: Rooms 408 and 410)
All Participants
- 5:20 p.m. Priority Research Directions** (Location: 4th Floor, Salon D)
All Participants
- 5:50 p.m. Adjourn**

Friday, August 11, 2017

- 8:00 a.m.** **Arrival and Hospitality** (Location: 4th Floor, Foyer near Salon D)
- 8:15 a.m.** **Plenary Introduction – Recycle and Re-Use of Materials** (Location: Salon D)
Andrew Carter, Stratasys Direct Manufacturing
- 8:35 a.m.** **Breakout Session 4 – Recycle and Re-Use of Materials** (Location: Rooms 408 and 410)
All Participants
- 9:35 a.m.** **Plenary Introduction – Effects of Environmental Conditions** (Location: Salon D)
Rainer Hebert, University of Connecticut
- 9:55 a.m.** **Breakout Session 5 – Effects of Environmental Conditions** (Location: Rooms 408 and 410)
All Participants
- 10:55 a.m.** **Break**
- 11:10 a.m.** **Priority Research Directions** (Location: Salon D)
All Participants
- 12:25 p.m.** **Adjourn**
- 12:25 p.m.** **Closed Session for Meeting Organizers**

Meeting Contact Information

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Attire: Business Casual



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