

## **Monday, August 24, 2020**

### **Process Systems Modeling and Simulation**

Moderator: Rick Dunst

**10:00 AM IDAES - Institute for the Design of Advanced Energy Systems**  
David Miller, National Energy Technology Laboratory

**11:00 AM Investigation of Cycling Coal Fired Power Plants Using High-Fidelity Models**  
Xu Fu, General Electric Company

**11:30 AM Life Modelling of Critical Steam Cycle Components in Coal-Fueled Power Plants**  
Mark Patterson, Southern Research Institute

**12:00 PM BREAK**

### **Multiphase Flow Modeling and Applications**

Moderator: Jason Hissam

**12:30 PM MFIX - Multiphase Flow with Interphase Exchanges**  
Jeff Dietiker, National Energy Technology Laboratory  
Dirk Van Essendelft, National Energy Technology Laboratory

**1:30 PM MFIX-DEM Enhancement for Industry-Relevant Flows**  
Hari Sitaraman, National Renewable Energy Laboratory

**2:00 PM Implementing General Framework in MFIX for Radiative Heat Transfer in Gas-Solid Reacting Flows**  
Michael Stoellinger, University of Wyoming

**2:30 PM LUNCH**

### **Ash Deposition Modeling for Boiler Application**

Moderator: Vito Cedro

**3:00 PM Probing Particle Impingement in Boilers and Steam Turbines Using High-Performance Computing with Parallel and Graphical Processing Units**  
Bryan Wong and Hyuna Kwon, University of California, Riverside

**3:30 PM An Integrated Approach to Predicting Ash Deposition and Heat Transfer in Coal-Fired Boilers**  
Guatham Krishnamoorthy, University of North Dakota Energy and Environmental Research Center (UNDEERC)