



## **INVITED SESSION**

### **Industrial Application of DEM & CFD-DEM**

#### **ORGANIZERS**

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#### **ABSTRACT**

A lot of industrial processes are dealing with particles, e.g. catalyst manufacturing, mining or diaper production.

Sometimes those processes are even dominated by particles and thus a proper knowledge about the process and the underlying unit operations is crucial for being cost efficient and competitive.

Although particle processes are widely applied and of fundamental importance, their design and prediction are often based on empirical knowledge. Discrete Element Method (DEM) and Computational Fluid Dynamics coupled to DEM (CFD-DEM) helped to solve some of the challenges and bear potential to do so in the future.

This session focuses on all aspects enabling industry to face future challenges: specific contact models (e.g. for pastes), new calibration routines (e.g. for cohesion) or new coupling approaches (e.g. with magnetic fields) as well as examples of successful process predictions at industrial scale.