



DEM POWDER CALIBRATION MEETING

THURSDAY 21 JUNE, 2018

EDINBURGH, UK

DEM POWDER CALIBRATION MEETING

Thursday 21 June, 2018. Edinburgh, UK

Powders are at the core of numerous applications in the pharmaceutical, additive manufacturing, chemicals and other process manufacturing industries.

The Discrete Element Method (DEM) has proven to be a great predictive tool for simulating processes in the powder handling industries and powder calibration is an important step towards realistic DEM simulations. However, it is also a genuine barrier for DEM applications. At EDEM we are keen to support our customers and bring together the experience and know-how on powder calibration techniques for various powder applications.

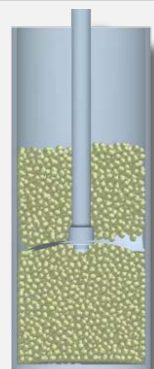
This first DEM Powder Calibration meeting will allow participants to discuss their key challenges and identify methods to address them. The focus of this meeting is on how to calibrate and develop appropriate DEM models for modelling powders.

Leading organizations and experts from industry and academia from around the world will be attending as well as special guests from leading powder testing equipment providers.



The objectives of the meeting are to:

- Discuss needs and requirements of the powder industry
- Identify key challenges and barriers linked to DEM powder calibration
- Discuss existing tools to address these challenges
- Share experience and know-how with industry experts
- Identify practical & hands-on solutions for powder calibration
- Share ideas as to where improvements to EDEM software technology would bring benefits for simulating powders



This meeting is intended to be very interactive - with a mix of presentations and discussions organized around key themes and topics. These include:

- Current challenges in powder calibration for DEM simulations
- Calibration methods and measurement tools for powder processes
- Critical parameters affecting granular processes
- Electrostatics in powder systems
- Future trends in powder handling systems

Following this first **DEM Powder Calibration Meeting**, the aim is to create a *Best Practices* document for DEM calibration technology and methods adopted by industry leaders. It will serve as a foundation for future developments and industry meetings to continuously improve DEM powder calibration practices.

PROGRAM

(last updated 19 June, 2018)

Thursday 21 June, 2018

08:30-09:00	Arrival & Registration
	Welcome Ian Williamson, CRO, EDEM
	SESSION A
09:00-09:30	Recent development and challenges in powder calibration for DEM simulations Prof. Jin Ooi, The University of Edinburgh
09:30-09:50	Issues in discrete element modelling of powder metallurgy processes Ben Thomas, University of Sheffield
09:50-10:10	Powder Spreading in Additive Manufacturing Mehrdad Pasha, Leeds University
10:10-10:30	Numerical analysis of material transport in dry granulation process Matej Zadavec, the University of Maribor
10:30-10:40	EDEM on GPU Callum Bruce, Engineer, EDEM
10:40-11:15	Discussion & coffee/tea break
	SESSION B
11:15-11:35	DEM Investigation of Particle Properties on Bulk Powder Flowability: Toward a Particle Calibration Library for Pharmaceutical Materials Bill Ketterhagen, Principal Research Engineer, Abbvie
11:35-11:55	Granular material characterisation at the macroscopic scale for the validation of simulation parameters Filip Francqui, Managing Director, Granutools
11:55-12:15	Understanding the Diverse Range of Characteristics that Powders Exhibit in Relation to Stress and Strain Regimes Tim Freeman, Managing Director, Freeman Technology
12:15-12:30	Discussion
12:30-13:30	Buffet Lunch
	GROUP DISCUSSIONS
13:30-15:30	Topics to be announced on the day <i>[Coffee/tea break]</i>
	SPECIAL SESSION
15:30-16:30	Dissemination event for Models for Manufacturing of Particulate Products project Jin Ooi & JP Morrissey, The University of Edinburgh Q&A
16:30-17:30	Tour of the University of Edinburgh labs
18:00-20:30	Dinner in Edinburgh city centre @ The Scotch Whisky Experience

VENUE

The meeting will take place at the University of Edinburgh – School of Engineering in the Sanderson Building which is located on the King's Buildings campus.



Sanderson Building
Robert Stevenson Road
The King's Buildings
Edinburgh
EH9 3FB

For taxis, enter via Gate 3 on Mayfield Road.

Travelling to the King's Buildings:

<http://www.ed.ac.uk/schools-departments/transport/travelling-here/kings-buildings>

Edinburgh taxis:

City Cabs: +44 (0) 131 228 1211

Central Taxis: + 44 (0) 131 229 2468

DINNER

Private dinner at Scotch Whisky Experience (Castlehill room).
The Royal Mile, 354 Castlehill, Edinburgh EH1 2NE

Taxis will take attendees who registered for the dinner from the meeting venue directly to the restaurant.

If you have any questions or require information please contact hello@edemsimulation.com

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