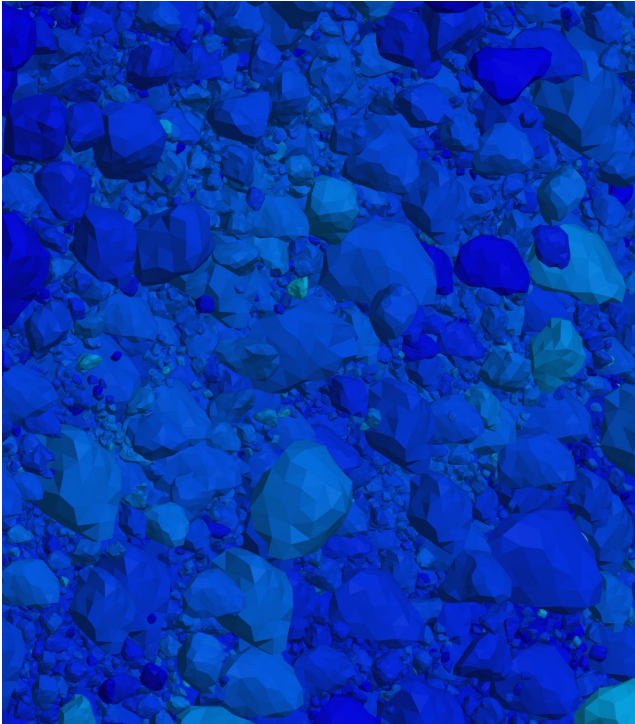
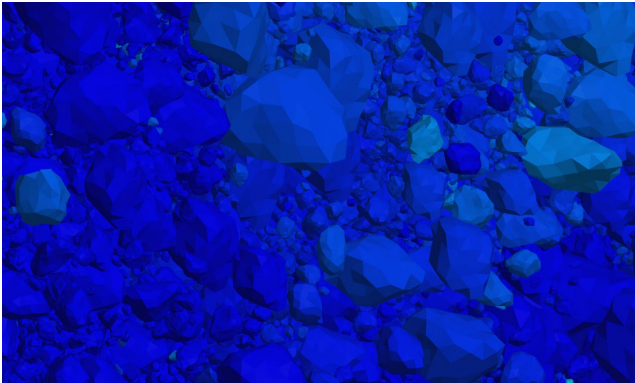




2nd Conference on

COMPUTER-AIDED ENGINEERING IN RAW MATERIAL PROCESSING AND PARTICLE TECHNOLOGY

September 30, 2026
Montanuniversität Leoben, Austria



About the Conference – 30 September 2026

The conference brings together researchers, engineers and industrial practitioners working at the forefront of digital engineering for particle-based processes.

Covering numerical simulation, virtual prototyping, digital twins and AI-supported engineering, the programme spans mining, mineral processing, bulk solids handling and related industries.

The event provides an international forum for scientific exchange, industrial case studies and new collaborations.

- International guests and speakers
- Latest advances in CAE and particle simulations
- Industrial and academic presentations
- Networking event
- Followed by the ON-DEM Workshops

ON-DEM Workshops – 1–2 October 2026

Following the conference, participants are invited to join the ON-DEM Workshops, bringing together leading international experts in discrete element modelling through technical workshops, scientific exchange and collaborative discussions within the European COST Action.

- Optional and free of charge
- International DEM expert community
- Technical workshops on industrial applications & best practices

Venue

Montanuniversität Leoben
Erzherzog Johann Tract
Ignaz Buchmüller-Platz 4
8700 Leoben, Austria

Poster Session

Bring your poster and share your research, project, or case study. No prescribed format. Contact us for support.

Registration

cae.unileoben.ac.at

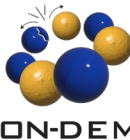
Conference fees:
General participant €145
BVÖ member €125
Students free of charge

Contact

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+43 664 80898 1814



This event is based upon work from COST Action ON-DEM, CA22132, supported by COST [European Cooperation in Science and Technology]. COST [European Cooperation in Science and Technology] is a funding agency for research and innovation networks. Our Actions help connect research initiatives across Europe and enable scientists to grow their ideas by sharing them with their peers. This boosts their research, career and innovation.



- 08:00 - Registration
- 09:00 - Welcome

- 09:15 -

DEM-Based Quantitative Prediction of Abrasive Wear in Bulk Materials Handling

André **Katterfeld**, Thomas Rößler

Otto von Guericke University Magdeburg (Chair of Material Handling), Germany

- 09:45 -

How Many Simulations Are Enough? The Impact of Particle Shape on the Uncertainty of DEM Predictions

Lukas **Maier**¹, Theodor Droschl¹, Lara Gibowsky², Stefan Radl¹

¹TU Graz (Institute of Process and Particle Engineering), Austria

²TU Hamburg (Institute of Thermal Separation Processes), Germany

- 10:15 -

Analysis of homogenization silos using DEM

Bahram **Haddadi**, Hamidreza Norouzi

Competence Center CHASE GmbH, Vienna, Austria

- 10:45 - Coffee Break

- 11:15 -

Virtual Prototyping in Jaw Crusher Development

Matthias **Egger**, Alexander Widmoser

SBM Mineral Processing GmbH, Oberweis, Austria

- 11:45 -

Influence of Grinding Compartment Configuration on HIGmill Power Draw: DEM–CFD Modeling and Experimental Validation

Michael **Denzel**, Fisher Wang, Alan Boylston, Ruari Soutar-Dawson, Michael Lehner

Metso, Baden, Switzerland

- 12:15 -

Resolved Breakage in DEM: A New Route Towards Predictive Crushing & Comminution Modelling

Johannes **Quist**

Fraunhofer-Chalmers Centre for Industrial Mathematics & Chalmers University of Technology, Gothenburg, Sweden

- 12:45 - Lunch Break

- 13:45 -

Bonded Particle Modelling of Flexible Intermediate Bulk Containers for Discharge Flow and Bulk–Wall Interaction Studies

Mitchell **Boots**, Mark Jones, Peter Robinson

University of Newcastle (Centre for Bulk Solids and Particulate Technologies) & TUNRA Bulk Solids, Newcastle, Australia

- 14:15 -

Numerical Modelling of Rockfall Impact on Protective Barriers Using DEM

Saleema **Panda**

Atlantic Technological University (Department of Civil Engineering and Construction), Sligo, Ireland

- 14:45 -

CFD–DEM Modelling of NMI Transport and Clogging in Submerged Entry Nozzles

Ali **Sedaghat**^{1,2}, Menghuai Wu², Hadi Barati¹

¹K1-MET GmbH, Leoben, Austria

²TU Leoben (Chair of Simulation & Modelling of Metallurgical Processes), Austria

- 15:15 - Coffee Break

- 15:45 -

DEM-Based Analysis and Optimisation of Blast Furnace Charging

Marcel **van Bente**n, Ahmed Hadi, Dingena Schott

TU Delft (Machines & Materials Interactions), Netherlands

- 16:15 -

Hybrid Physics-Informed and Data-Driven Approaches for Particulate Processes in Ironmaking

Christoph **Goniva**, Christoph Kloss

DCS Computing GmbH, Austria

- 16:45 -

Beyond Classical Models in Particle Technology – Cognitive AI and the Road Towards Embedded Intelligence

Carsten **Schilde**

TU Braunschweig (Institute for Particle Technology), Germany

- 17:15 - Closing

- 17:20 - End & Evening Event