Thursday, 20. April 2023

Room 'Donau'	Room 'Traun'	Room 'Enns'	Room 'Inn'
COFFEE & REGISTRATION 08:30-09:00			
09:00 Welcome			
Joshua Dijksman (Amsterdam- & Wageningen University) Spooky action at a distance? 09:05-09:35			
Martin Lubej (Novartis) Modelling & Simulation in Pharmaceutical Development: Opportunities, Challenges and Examples 09:35-10:05			
Stefan Radl (TU Graz) Filtered Gas-Particle Flow Models: Tools for Closure Development 10:05-10:35			
Coffee Break 10:35-10:55			
Rouven Weiler (BASF) A Decade with the Discrete Element Method in Chemical Industry 10:55-11:25			
Prashant Gupta (Procter & Gamble) Challenges in manufacturing everyday consumer products 11:25-11:55			
Lunch Break 11:55-13:00			
NM* Queteschiner D., 13:00-13:20 CFD-DEM Simulations of Iron Ore Reduction	ISM* Viciconte G., 13:00-13:20 Fuel Cell modelling with Aspherix and CFDEMcoupling	PSD* Braile D., 13:00-13:20 DEM analysis of segregation phenomena in swelling granular media	**TUSAIL Session** Chair: Stefan Luding 13:00-14:40 10 talks á 10 minutes
NM* Passafiume D., 13:20-13:40 Modelling of particles fragmentation and dust formation/ resuspension in granular tritium breeder material …	ISM* König A., 13:20 - 13:40 Residence time calculation algorithm for long-duration processes	PSD* Mascara M., 13:20-13:40 A Bonded Particle Generalized Maxwell Model to Predict Rheology & Mechanical properties of Hydrogel Spheres	Rahul Sharma Amine Ait Ouazzou
NM* Xia H., 13:40-14:00 Computational modelling of evaporation-induced particle transport and accumulations with an improved…	ISM* Abraham J., 13:40-14:00 Towards rigorous simulation of thermal runaway of Lithium-Ion-Batteries: the effect of particle flow and…	PSD* Aboshighiba H., 13:40-14:00 What can be achieved by a novice using Aspherix in one month?	Dongre Varun Erken Oguzhan
NM* Seba M., 14:00-14:20 An artificial intelligence-based predictive model to analyze erosion rates in transport pipelines	ISM* Togni R., 14:00-14:20 DEM simulation of rheologically-complex materials	PSD* Ajmani A., 14:00-14:20 Modelling Mechanical Agitation of Particle-Loaded Fiber under Crossflow Condit. using a Coupled CFD-DEM Fr.	Esgandari Behrad Balázs Füvesi Retrief Lubbe
NM* Lichtenegger T., 14:20-14:40 Multiscale and multiphysics challenges of blast furnace modeling		PSD* Seil P., 14:20-14:40 Development of the Thornton-Ning adhesive elasto-plastic contact model for sandstone in Aspherix®	Akhil Mathews Roxana Saghafian Jobin Raju
Coffee Break 14:40-15:00			
LM* Lupo G., 15:00-15:20 Laser absorption on rough surfaces	BA* Grobbelaar HC., 15:00-15:20 DEM Modeling of Ballistic Gelatin for Low Energy Impacts	IF* Braumann J., Singline K., 15:00-15:20 Simulation Informed Robotic Tool-Pathing	**TUSAIL Session** Chair: Vanessa Magnanimo 15:00-16:00
LM* Aggarwal A., 15:20-15:40 CFDEM coupling for Laser Additive Manufacturing modelling	BA* Porcaro C., 15:20-15:40 CFD-DEM simulation of blood flow in bio-microfluidic applications	IF* Kalcher C., 15:20-15:40 OVITO Visualization Tool for postprocessing DEM simulation data	1 talk á 20 minutes, 3 talks á 10 minutes 1 free slot á 10 minutes Yeswainth Sai Tanneru
	BA* Nagy J., 15:40-16:00 Aneurysm Risk Estimation Support	IF* Aigner A., 15:40-16:00 Interoperability - Takeaways from EU Projects Marketplace and OpenModel	Afshin Taghizsadeh Max Winkelmann Gero Stöckl
Goniva C. & Kloss C. (DCS Computing) DEM & CFD-DEM Recent advances, remaining challenges and road map 16:00-16:35			
Group Photo / Break / Drink in Foyer 16:35-17:15			
17:15 1st train to 'Redoutensäle' 17:20 (sharp!) 2nd train to 'Redoutensäle'			
Social Event, Cocktails & Networking at 'Redoutensäle' 17:45-19:00			
Conference Dinner at 'Redoutensäle' 19:00: - 23:00			

Information on Technical Sessions:

*NM Novel Models
*ISM Industrial-Scale Modelling
*PSD Particle Scale DEM

*LM Laser Modelling
*BA Biomechanical Applications
*Interfaces

Friday, 21. April 2023

Room 'Donau'	Room 'Traun'	Room 'Enns'
09:00 Welcome		
Pari Rao (Astra Zeneca) 09:05-09:35		
Andriarimina Rakotonirina (TOC) Towards multi-scale modelling of marine plastic debris transport and the ocean cleanup systems 09:35-10:05		
André Katterfeld (University of Magdeburg) Calibration and DEM Simulation of Biomass Materials 10:05-10:35		
Coffee Break 10:35-10:55		
Dusan Ilic (The University of Newcastle) Modelling and simulation of granular materials: A cruise into materials handling 10:55-11:25		
Carsten Schilde (TU Braunschweig) The role of artificial Intelligence in CFD-DEM-simulations 11:25-11:55		
Lunch Break 11:55-13:00		
CFD* Kwakkel M., 13:00-13:20 Application of CFD-DEM at multiple scales: combining resolved and unresolved models	BLS* König A., 13:00-13:20 An efficient & user-friendly approach for modelling an industrial-scale catalytic reactor with coupled CFD-DEM	**MATHEGRAM Symposium** Chair. Prof. Charley Wu 13:00-14:20 5 talks á 15 minutes
CFD* Saeedipour M., 13:20-13:40 Analysis of the droplet-particle interactions using a resolved VOF-DEM approach	BLS* Pirker S., 13:20-13:40 rCFD Simulations of Segregation in Bi- and Polydisperse Gas-Solid Fluidized Beds	Christophe Martin
CFD* Benariba A., 13:40-14:00 Microscale description of micropolar fluid flow	BLS* Mayrhofer A., 13:40-14:00 Aspherix® and heterogeneous computing	Alessando Franci Aman Rastogi
CFD* Niemann M., 14:00-14:20 Simulation of two-phase fluid flow around resolved objects using IBM in CFDEM*coupling	BLS* Fronterrè M., 14:00-14:20 Numerical modelling of a rotating furnace	Massimo Poletto Charley Wu
Coffee Break 14:20-15:00		
NP* Luding S., 15:00-15:20 About elastic-plastic-adhesive contact models		**MATHEGRAM Symposium** Chair. Prof. Charley Wu 15:00-16:00 4 talks á 15 minutes
NP* Hidalgo R., 15:20-15:40 Discharge of non-spherical particles from silos and hoppers		Stefan Radl
NP* Grohn P., 15:40-16:00 Numerical investigation of the fluidization behavior of cylindrical particles with the superquadric approach		Catherine O'Sullivan Marina Schnaider Bortolotto Ranjan Dhakal
Closing, Cocktail and Fairwell		

Information on Technical Sessions:

*CFD Novel CFD-DEM Methods
*BLS Bridging Time and Length Scales
*NP Nonspherical Particles