



DEM7



7th International Conference on Discrete Element Method



DALIAN UNIVERSITY OF TECHNOLOGY

August 1-4, 2016

DALIAN, CHINA

Monday, 1 August, 2016

08:30~20:00	Registration Hotel of DUT Business Executives Academy
18:00-20:00	Icebreaker Restaurant of DUT Business Executives Academy

Tuesday, 2 August, 2016

08:00-20:00	Registration					Lobby, Main Building	
09:00~09:30	Opening Ceremony					China Trade Association Hall Main Building	
09:30~10:15	Plenary Lecture						
10:15-10:50	Take picture & Coffee Break						
10:50-12:30	Session A1 Contact, Bonding and Constitutive Modeling (1)	Session B1 Powder Technology	Session C1 DEM in Soil Mechanics (1)	Session D1 Granular Flow (1)	Session E1 Packing of Irregular Shape Particles (1)	Session F1 DEM in Rock Mechanics (1)	
12:30-13:30	Lunch			China Trade Association Hall, Cafeteria			
13:30-14:40	Keynote Lecture				China Trade Association Hall Main Building		
14:40-15:00	Coffee Break						
15:00-17:15	Session A2 Contact, Bonding and Constitutive Modeling (2)	Session B2 DEM in Multiphase Flow (1)	Session C2 DEM in Soil Mechanics (2)	Session D2 Materials fracture and failure based on DEM	Session E2 Packing of Irregular Shape Particles (2)	Session F2 DEM in Rock Mechanics (2)	
18:00-20:00	Welcome Reception			Restaurant of DUT Business Executives Academy			
20:00-21:00	DEM7 Committee Meeting			Room: Main building, B212			

Wednesday, 3 August, 2016					
08:30-20:00	Registration			Lobby, Main Building	
09:00~09:45	Plenary Lecture			China Trade Association Hall Main Building	
09:45-10:10	Coffee Break				
10:10-12:10	Session A3 DEM-FEM Modelling (1)	Session B3 DEM in Multiphase Flow (2)	Session C3 DEM in Soil Mechanics (3)	Session D3 DEM Related Experimental studies	Session E3 DEM in Mechanical Engineering
12:10-13:30	Lunch		China Trade Association Hall, Cafeteria		
13:30-14:40	Keynote Lecture			China Trade Association Hall Main Building	
14:40-15:00	Coffee Break				
15:00-17:10	Session A4 DEM-FEM Modelling (2)	Session B4 DEM in Multiphase Flow (3)	Session C4 High Performance DEM Computing	Session D4 DEM in Geotechnical and Ocean Engineering	Session E4 DEM in Agricultural Engineering
17:10-18:00	Formal Poster Session		China Trade Association Hall, Main Building		
18:00-20:00	Banquet DUT International Convention Center, Ballroom Shuttle Bus: 17:30 Departure; 20:30 return. (about 5 minutes driving)				

Thursday, 4 August, 2016					
08:30-20:00	Registration			Lobby, Main Building	
09:00~09:45	Plenary Lecture			China Trade Association Hall Main Building	
09:45-10:10	Coffee Break				
10:10-12:20	Session A5 DEM in Chemical Engineering	Session B5 DEM in Multiphase Flow (4)	Session C5 Granular Flow (2)	Session D5 DEM Theory and Algorithms	Session E5 Coarse-graining and size effect
12:20-13:30	Lunch		China Trade Association Hall, Cafeteria		
13:30-14:45	Session A6 Influence of particle shape	Session B6 DEM Related Methods	Session C6 Granular Flow (3)	Session D6 DEM in Transport Engineering	Session E6 Cohesive model
14:45-15:10	Coffee Break				
15:10-16:20	Keynote Lectures			China Trade Association Hall Main Building	
16:20-17:00	Closing Ceremony				
18:00-19:30	Dinner		China Trade Association Hall, Cafeteria		

Technical Program of DEM7

Tuesday, 2 August, 2016

09:30 ~10:50

Plenary Lecture A

Chair: Xikui Li

China Trade
Association Hall
Main Building

09:30-10:15	Felix Darve (<i>Grenoble Institut Polytechnique, Université Grenoble Alpes, France</i>) DEM modelling in geomechanics, recent breakthroughs
10:15-10:50	Take picture & Coffee Break

Tuesday, 02 August 2016

10:50 ~12:30

Tuesday, 02/08/2016, 10:50 ~ 12:30

Contact, Bonding and Constitutive Modeling (1)

Chair: Xihua Chu

Session A1
Main Building, B212

10:50-11:15	G010276	Study of Breakage Behavior of Sand in True Triaxial Stress Conditions Based on Discrete Elements Method (<i>invited</i>)	<i>Lunlun Zhou, Xihua Chu, Yuanjie Xu</i>
11:15-11:30	G010198	Relations between the Micropropertie and Macroproperties of Cemented Granular Materials with Contact Bonded Model	<i>Zhao Honghua, Zhang Zhi, Zhou Kun</i>
11:30-11:45	G010233	Role of DEM in Assessment of Continuum Equations for Solid-solid Drag Force with Various Particle Size Ratios	<i>Payman Jalali, Timo Hyppänen</i>
11:45-12:00	G010293	Elasticity and Quasistatic Response of Composite Granular Material Induced by a Localized Force	<i>Dengming Wang, Wei Du</i>
12:00-12:15	G010297	Heavy Impact Compaction Modeling and Analysis on Unbound Paving Mixtures	<i>Xiaodong Zhou, Yu Liu, Zhanping You</i>
12:15-12:30	G010502	Identification of Friction Coefficient of DEM Simulation	<i>Shingo Ishihara, Souhei Soekawa, Junya Kano</i>

Tuesday, 02/08/2016, 10:50 ~ 12:30 Powder Technology Chair: H. Kruggel-Emden	Session B1 Main Building, B218
---	---

10:50-11:15	G010271	Numerical Investigation of Optical Sorting Using the Discrete Element Method (invited) <i>C. Pieper, H. Kruggel-Emden, S. Wirtz, V. Scherer, F. Pfaff, B. Noack, U.D. Hanebeck, G. Maier, R. Gruna, T. Längle, J. Beyerer</i>
11:15-11:30	G010431	Concurrent Adaptive Mass-conserving Comminution of Granular Materials Using Rigid Elements <i>Francesco De Cola, Nicola Bombace, Simone Falco, Nik Petrinic</i>
11:30-11:45	G010471	DEM Modeling of Silo Loads Asymmetry Induced by Eccentric Discharge <i>Bin Chen, A. Roberts, T. Donohue</i>
11:45-12:00	G010507	Dependence of Granular Materials Homogenization on Geometrical Aspects in a Vertical Bladed Mixer via DEM <i>Martin Kohout, Tomas Barczy Tereza, T.Travnickova, Jaromir Havlica</i>
12:00-12:15	G010508	The Effect of Rotational Speed on Granular Dynamics and Homogenization in a Vertical Bladed Mixer <i>Jaromir Havlica, Klara Jirounkova Tereza, Travnickova, Pavel Petrus, Martin</i>
12:15-12:30	G010494	Understanding Size Segregation in Tumbling Mills <i>Rahul K. Soni, B. K. Mishra</i>

Tuesday, 02/08/2016, 10:50 ~ 12:30 DEM in Soil Mechanics (1) Chair: Jidong Zhao	Session C1 Main Building, B217
--	---

10:50-11:15	G040565	Multiscale Hydro-mechanical Modeling of Saturated Granular Media (invited) <i>Jidong Zhao, Ning Guo</i>
11:15-11:30	G010569	Discrete Element Simulation of Pipe Pile Penetration in Sand <i>Honghua Zhao, Zhi Zhang, Yong Sang, Louis Ge</i>
11:30-11:45	G010575	Micromechanical Study of the Elastic Stiffness in Frictional Granular Soils <i>K. Taghizadeh, V. Magnanimo, S. Luding</i>
11:45-12:00	G010451	Investigation into the Soil-root Composites Using Element Method <i>Mingjing Jiang, Y.G. Zhu, Banglu Xi</i>
12:00-12:15	G010245	Liquefaction of Gravelly Soils Investigated by Cyclic 3D DEM Tests <i>Eduardo L. Martin, Francisco Zabala, Luciano A. Oldecop, Stefano Utili</i>

Tuesday, 02/08/2016, 10:50 ~ 12:30 Granular Flow (1) Chair: Yuanqing Tan			Session D1 Multifunctional building #3, 304
10:50-11:15	G040492	The Effect of Powder Flowability in the Selective Laser Sintering Process (invited) Yuanqiang Tan , Junhui Zheng , Wei Gao , Shengqiang Jiang , Yuntian Feng	
11:15-11:30	G010261	Investigation of the Resonant Frequencies of Granular Media and of Its Nonlinear Response to Acoustic Waves Laure Lemrich , Paul Johnson , Robert Guyer , Jan Carmeliet	
11:30-11:45	G010460	Event-driven Simulation of Vibrofluidised Granular Materials Nicolas Rivas , Anthony Thornton , Kit-Windows Yule , David Parker , Stefan Luding	
11:45-12:00	G010372	Glass and Jamming Transition in a Shear-driving Granular System Jie Zhang , Yinqiao Wang	
12:00-12:15	G010373	Exchange of Translational and Rotational Energy of a Two-dimensional Object in a Granular Gas Using Discrete Element Methods Kiwing To , Chun Wong	
12:15-12:30	G040497	The Effect of Intruder Shape on the Drag Force in Granular Media Ali Abbas Zaidi , Christoph Muller	

Tuesday, 02/08/2016, 10:50 ~ 12:30 Packing of Irregular Shape Particles (1) Chair: John Paul Latham			Session E1 Multifunctional building #3, 301
10:50-11:15	G030529	Achieving Accuracy in the Modelling of Particle Shape Effects in Packed Granular Structures: When is it Important? (invited) John Paul Latham , Jiansheng Xiang , Ado farrsi	
11:15-11:30	G010221	Sphere Packing Based on Geometric Algorithm Generation Method Yonguun. Li , Shunying. Ji	
11:30-11:45	G010280	A New Method for the Generation of Polydisperse DEM Specimens Chaomin Shen , Sihong Liu , Yishu Wang	
11:45-12:00	G030591	Random Packing of Tetrahedral Particles Using the Polyhedral and Multi-sphere Discrete Element Method Shiwei Zhao , T. Matthew Evans , Xiaowen Zhou	
12:00-12:15	G040438	The Excluded Volume of the Non-convex Particles Wenxiang Xu , Yanze Niu	
12:15-12:30	G010322	DEM Simulation of Random Loose Packings of Micron-sized Particles with Adhesion and Friction Wenwei Liu , Shuiqing Li , Sheng Chen	

Tuesday, 02/08/2016, 10:50 ~ 12:30

DEM in Rock Mechanics (1)

Chair: Meng-Chia Weng

Session F1

Main Building, B211

10:10-10:35	G010380	Modeling the Joint Behavior Using a Rough Joint Model of DEM (invited) <i>Chia-Chi Chiu, Meng-Chia Weng, Tsan-Hwei Huang</i>
11:15-11:30	G040368	Calibration of Microscopic Mechanical Parameters of Granite Using Actual Distributions and Orthogonal Simulations <i>Dayong Huang, Jinming Xu, Tao Chen</i>
11:30-11:45	G010370	Three-dimensional Discrete Element Model for Tri-axial Tests of Graded Stones under Different Gradations <i>He Wang, Biao Ma, Xiaodong Zhou, Yu Liu</i>
11:45-12:00	G010542	Dimensions and Brittleness Effect on the Size of Process Zone in Rock-like Material Characterized by Bonded Particle Model <i>Jianwen Peng, Changhong Li, Ali Tarokh</i>
12:00-12:15	G010442	DEM Modeling of Crack Coalescence in Rock Specimens with Two Infilled Flaws <i>Dong Zhou, Zhihong Zhao</i>

Tuesday, 2 August, 2016

13:30 ~15:00

Keynote Lecture A

Chairs: Shunying Ji, Stefan Luding

**China Trade
Association Hall
Main Building**

13:30-14:05	Aibing Yu (<i>Monash-Southeast University, Australia</i>) Recent Theoretical Developments in Discrete Element Modelling of Particulate Systems
14:05-14:40	Xiangjun Qiu (<i>Metso Minerals Industries, USA</i>) DEM Simulations in Mining and Mineral Processing
14:40-15:00	Coffee Break

Tuesday, 2 August, 2016

15:00 ~17:15

Tuesday, 02/08/2016, 15:00 ~ 17:15

Contact, Bonding and Constitutive Modeling (2)

Chair: Colin Thornton

**Session A2
Main Building, B212**

15:00-15:25	G010225	On the Apparent Non-coaxiality of the Tangential Contact Interaction (<i>invited</i>) <i>Colin Thornton</i>
15:25-15:40	G010351	A Simple Multiscale Model for Granular Soils with Geosynthetic Inclusion <i>Hongyang Cheng, Haruyuki Yamamoto, Ning Guo, He Huang</i>
15:40-15:55	G010489	A Novel Rock Contact Model Considering Water-softening and Chemical Weathering Effects <i>Mingjing Jiang, Wenwen Liu, Zhaowen Liao</i>
15:55-16:10	G030564	Investigation of Contact Parameters of DEM Model in Flow Process <i>X. Xiao, Y. Tan, R. Deng, S. Jiang, W. Gao, C. Hu</i>
16:10-16:25	G010445	Preliminary DEM Analysis on Micro-mechanical Behavior of the Composite Cemented Granules under Complex Stress Conditions <i>Mingjing Jiang, Wei Liu, Banglu Xi, Shulou Jin</i>
16:25-16:40	G010275	The Influence of Rolling Resistance on Granular Responses under Triaxial Loading Paths <i>Wei Zhou, Jiaying Liu, Gang Ma, Xing Ma, Xiaolin Chang, Chao Zhang</i>
16:40-16:55	G010229	Three Dimensional Particle-particle Impact Model Based on Impact Force Analysis <i>Kuahai Yu, Husam Elghannay, Danesh Tafti</i>
16:55-17:10	G010236	DEM Simulation of Non-spherical Particles by Using Combined Models <i>Yongzhi Zhao</i>

Tuesday, 02/08/2016, 15:00 ~ 17:15 DEM in Multiphase Flow (1) Chair: Kun Luo		Session B2 Main Building, B218
15:00-15:25	G010453	Large Eddy Simulations of Gas-Solid Flows in Fluidized Beds (invited) Kun Luo
15:25-15:40	G010556	Simulation of Multiphase Gas Transport Using Smoothed Particle Hydrodynamics Jihoe Kwon , Heechan Cho , Jinyoung Je , Donwoo Lee
15:40-15:55	G020611	Transition between Dilute and Dense Flows of Particles Suspended in Bingham Fluids Using the Coupled LBM-DEM Chuanhu Zhang , Junyu Wei , Qicheng Sun , Feng Jin
15:55-16:10	G010580	A Numerical Study of the Effect of Loading Profiles on Mixing Segregation of Particles in the Truck Mixer via DEM Rong Deng , Yuanqiang Tan , Hao Zhang , Xiangwu Xiao , Shengqiang Jiang
16:10-16:25	G020376	CFD-DEM Study the Effect of Carrier-drug Mass Ratio on the Aerosolisation Process in Original and Modified Dry Powder Inhalers Zhenbo Tong , Wenqi Zhou , Aibing yu
16:25-16:40	G040587	Numerical Investigation of the Mechanical Behavior of Wet Powders inside a Mixer Torque Rheometer (MTR) Michele Mariqo , Giuseppe Raso , Hugh E. Stitt , Vanessa Magnanimo , Stefan Luding , Jin Y. Ooi
16:40-16:55	G020323	Discrete Modeling of the Discharge Dynamics of Granular Material in Moving Bed: the Effects of Particle Friction Coefficient and Outlet Setting Qiang Liu , Lin Du , Xiaoxing Liu
16:55-17:10	G020534	A Combined LBM-IBM-DEM for Magnetic Particles in a Liquid with External Magnetic Field Chunhai Ke , Shi Shu , Haizhuan Yuan , Hao Zhang
Tuesday, 02/08/2016, 15:00 ~ 17:15 DEM in Soil Mechanics (2) Chair: Mingjing Jiang		Session C2 Main Building, B217
15:00-15:25	G010490	Effect of Different Temperatures and Pore Pressures on Geomechanical Properties of Pore-filling Type of Methane Hydrate Soils Based on the DEM Simulations (invited) Jie He , Mingjing Jiang , Jun Liu
15:25-15:40	G010218	Influence of Rigid and Flexible Top Boundaries on Geogrid Pullout Behavior Using DEM Zhijie Wang , Felix Jacobs , Martin Ziegler
15:40-15:55	G010462	DEM Simulation of Dynamic Compaction with Different Tamping Energy and Calibrated Damping Parameter Mingjing Jiang , Di Wu , Banglu Xi
15:55-16:10	G010465	On the Use of the Uniaxial Shear Test for DEM Calibration T.J Donohue , C.M. Wensrich , S. Reid
16:10-16:25	G010515	Analysis of Strength Characteristics for Granular Materials Based on Discrete Element Simulation Duo Zhang , Yang Liu , Shun-chuan Wu
16:25-16:40	G010374	Influence of Inherent Anisotropy on the Soil Behavior in Simple Shear Tests Using DEM Jiangu Qian , Weiyi Li , Xiaoqiang Gu , Kai Xu
16:40-16:55	G010513	Discrete Element Analysis of the Fabric Evolution of Granular Soils during Cyclic Loading Mingjing Jiang , An Zhang , Wenhao Du

Tuesday, 02/08/2016, 15:00 ~ 17:15 Materials fracture and failure based on DEM Chair: <u>André Vervoort</u>	Session D2 Multifunctional building #3, 304
--	--

15:00-15:25	G010243	Discrete Simulation of Fracturing and Failure of Rock Samples (<i>invited</i>) <u>André Vervoort, B. Debecker, G. Van Lysebetten</u>
15:25-15:40	G010375	A 3D Mesoscopic Model for Simulating Failure Process of Concrete Based on Discrete Element Method <u>Junyu Jia, Xianglin Gu</u>
15:40-15:55	G010294	An Investigation of Single Particle Crushing Tests on Irregular-shaped Quartz Sand with DEM <u>Budi Zhao, Chow Chin Yat Douglas, Jianfeng Wang</u>
15:55-16:10	G020469	A Numerical Study on Mechanical Behaviour of Crushable Particles Subjected to Expanding Contracting Process <u>Y.C. Chung, K.H. Chiu, C.K. Lin</u>
16:10-16:25	G010613	Numerical Simulation of In-plane Loaded Masonry Walls Based on Homogenized Discrete Element Model <u>Hong Zhang, Xianglin Gu, Xiang Li, Gonglian Chen</u>

Tuesday, 02/08/2016, 15:00 ~ 17:15 Packing of Irregular Shape Particles (2) Chair: <u>Jiansheng Xiang</u>	Session E2 Multifunctional building #3, 301
--	--

15:00-15:25	G030454	Algorithms and Capabilities of Solidity to Simulate Interactions and Packing of Complex Shapes (<i>invited</i>) <u>Jiansheng Xiang, John Paul Latham, Ado Farsi</u>
15:25-15:40	G030571	DEM Dynamical Simulation on the Packing Ordering of Cylindrical Particles under Mechanical Vibrations <u>Quan Qian, Xizhong An, Lin Wang, Ju Wang, Xiaohong Yang</u>
15:40-15:55	G030549	NURBS-based DEM Simulation for Deformable Irregular Particles <u>Shiwen Liu, Feiguo Chen, Wei Ge</u>
15:55-16:10	G030307	Simulation and Characterization of the Packings of Non-Spherical Particles by Space and Orientation Discretization <u>Kejun Dong, Chuncheng Wang, Aibing Yu</u>
16:10-16:25	G030444	Numerical Investigation on the Effect of the Dimer Clusters in Tetrahedral Particle Packings Using the Discrete Element Method <u>Ye Yuan, Weiwei Jin, Lufeng Liu, Shuixiang Li</u>
16:25-16:40	G030421	DEM Simulation on the Packing of Octahedral Particles under Mechanical Vibration <u>Lin Wang, Xizhong An, Quan Qian, Ju Wang, Xiaohong Yang</u>

Tuesday 02/08/2016 15:00 ~ 17:15

DEM in Rock Mechanics (2)

Chair: Stefano Uti

Session F2

Main Building, B211

15:00-15:25	G010532	A New Rock Slicing Algorithm with Reduced Data Structure for Discrete Element Method Analyses for Rock Mechanics (<i>invited</i>) <i>Stefano Uti, C.W.Boon,M, Lazari</i>
15:25-15:40	G010606	Discrete Element Meso-structure Parameters of Sand Pebble Surrounding Rock Particles in Different Dense Degrees <i>J.F.Lu, C. W. Zhang, P. Jian</i>
15:40-15:55	G010435	Numerical Simulation of Compaction Bands in Porous Sandstone Using Close-packed Discrete Element Model <i>Chun Liu, Qiang Xu, Bin Shi</i>
15:55-16:10	G010199	Numerical Simulation of Resonant Column Tests on Jointed Rocks Using DEM <i>Resmi Sebastian, T. G. Sitharam</i>
16:10-16:25	G010427	Numerical Study on Seismic Isolation Effect of Gravel Cushion <i>Xueliang. Zhao, Qian Zhang, Qi Zhang, Jianming He</i>
16:25-16:40	G010317	Multi-scale Discrete Element Modeling for Asphalt Concrete Structural Mechanics <i>Yu Liu, Xiaodong Zhou, Zhanping You</i>
16:40-16:55	G010324	Coupled DEM/FLAC Simulation for Mechanical Behavior of Railway Ballasted Track and Subgrade System <i>Chunfa Zhao, Can Shi, Xu Zhang</i>

Wednesday, 3 August, 2016

09:00 ~10:10

Plenary Lecture

Chair: Yuntian Feng

**China Trade
Association Hall
Main Building**

9:00-9:45	Stefan Luding (<i>University of Twente, Netherlands</i>) How to Get from DEM to Continuum Models?
9:45-10:10	Coffee Break

Wednesday, 3 August 2016

10:10 ~12:10

Wednesday, 03/08/2016, 10:10 ~ 12:10

DEM-FEM Modeling of Granular Materials (1)

Chair: Xikui Li

**Session A3
Main Building, B212**

10:10-10:35	G010414	Advances in Multiscale FEM-DEM Modeling of Granular Materials (<i>invited</i>) <i>Xikui Li, Zenghui. Wang, Youyao.Du, Qinglin.Duan</i>
10:35-10:50	G010264	Simulation of Particle Dampers Using the Combined Finite-Discrete Element Method—A Simple Case <i>Xudong Chen, Hongfan Wang</i>
10:50-11:05	G010281	Multiscale Modeling of Granular Assemblies Based on Different Micromechanical Strain <i>Wei Zhou, Yong Huang, Gang Ma, Xiaolin Chang</i>
11:05-11:20	G020345	Numerical Simulations of the Interactions between A Pneumatic Tire and Granular Sand by 3D DEM-FEM <i>Zumei Zheng, Mengyan Zang</i>
11:20-11:35	G010474	Investigation on the Integrity of Cement Annulus during Multi-stage Horizontal Fracturing with FEM/DEM <i>Y. K. Xing, G. Q. Zhang, S. Y. Li, Z. K. Zhang, R. Pan</i>
11:35-11:50	G010498	A Finite-discrete Element Framework for Modeling Interface Shear Damage to HDPE Geomembrane in Contact with Gravel Drainage Layer <i>Masood Meidani, Mohamed A. Meguid, Luc E. Chouinard</i>
11:50-12:05	G030506	Simulation and Characterisation of Packed Columns for Cylindrical Catalyst Supports and Other Complex-shaped Bodies <i>A. Farsi, J. Xiang, J. P. Latham, M. Carlsson, E. H. Stitt, M. Marigo</i>

Wednesday, 03/08/2016, 10:10 ~ 12:10 DEM in Multiphase Flow (2) Chair: Takuya Tsuji	Session B3 Main Building, B218
--	---

10:10-10:35	G020468	Motion of Dense Solid Mixtures with Large Size Difference by Fictitious Particle Method (<i>invited</i>) <i>Takuya Tsuji, Kyohei Higashida, Toshitsugu Tanaka</i>
10:35-10:50	G020594	LBM-DEM Modelling of Viscoplastic Particle Suspensions without Explicit Regularisation <i>Christopher R. Leonardi, Wojciech Regulski, Bruce D. Jones, John R. Williams</i>
10:50-11:05	G010197	A LBM-DEM Coupled Approach for Fast Simulation of Particle-fluid Two-Phase Flows <i>Limin Wang</i>
11:05-11:20	G020458	Controlling the Flow Structure in Fluidized Bed: A CFD-DEM Approach <i>D. G. de Oliveira, O. O. Ayeni, C.L. Wu, K. Nandakumar, J. B. Joshi</i>
11:20-11:35	G020402	Particle Scale Modeling of Heat and Mass Transfer in Gas-solid Systems <i>Qinfu Hou, Aibing Yu</i>
11:35-11:50	G020424	CFD-DEM Simulation and Characterization of Agglomerates in a Nanoparticle Fluidized Bed <i>Daoyin Liu, Xiaoping Chen Berend, G. M. van Wachem, J. Ruud van Ommen</i>

Wednesday, 03/08/2016, 10:10 ~ 12:10 DEM in Soil Mechanics (3) Chair: Mohsen Asadi Zeidabadi	Session C3 Main Building, B217
---	---

10:10-10:25	G010586	Simulation of Sand Tire Mixture by Discrete Element Method <i>Ahmad Mahboubi, Mohsen Asadi Zeidabadi</i>
10:25-10:40	G010364	Effect of Particle Shape on Geogrid-Reinforced Granules <i>Xinbao Yu, Asheesh Pradhan</i>
10:40-10:55	G010475	DEM Analysis of Inclined Cone Penetration Test in Structured Sand Ground <i>Mingjing Jiang, Yanan Shen, Chang Fu</i>
10:55-11:10	G010452	Micromechanical Simulation of Fines Content Effect of Soils Using the Discrete Element Method <i>Chao Zhang, Shangwei Wu, Chunhe Yang, Haiming Liu</i>
11:10-11:25	G010476	DEM Analysis of Cone Penetration Tests in Pure Sand and Structured Sand <i>Mingjing Jiang, Sun Liu, Chang Fu</i>
11:25-11:40	G010448	Exploring the Undrained Cyclic Behaviour of Sand Using DEM <i>Xin Huang, Catherine O'Sullivan, Zixin Zhang, Chung yee Kwok, Kevin J Hanley</i>
11:40-11:55	G010409	The Transportation and Deposition of the 2009 Hsiaolin Landslide in Taiwan Revealed from a 3D Granular Distinct Element Simulation <i>Jyr Ching Hu, Chao Lung Tang</i>

Wednesday, 03/08/2016, 10:10 ~ 12:10 DEM Related Experimental Studies Chair: Zhengguo Gao			Session D3 Multifunctional building #3, 304
10:10-10:25	G010234	Photoelastic Experiments on Force Chain Evolution in Granular Materials under Bilateral Flowing Conditions <i>Meimei Wang, Jinan Wang, Weidong Pang, Chao Liang</i>	
10:25-10:40	G010605	The Design and Development of Granular Material Photoelastic Device with Mutiway Loading <i>Zhengguo Gao, Zhichang Li, Alam Mohammad</i>	
10:40-10:55	G010592	Study of Shear Behavior of Homogeneous and Heterogeneous Granular Materials by Experimentation and Numerical Simulation of Triaxial Test <i>Kai Wu, Songyu Liu, Sebastien, Nor-Edine Abriak, Patrick Pizette, Frederic Becquart</i>	
10:55-11:10	G010607	Identification and Analysis of Force Chain Structures in Photoelastic Experiments <i>Chao Liang, Jinan Wang, Meimei Wang, Xiangang Han</i>	
11:10-11:25	G030537	3D Surface Reconstruction of Real Sand Particles Using X-ray Tomography and Spherical Harmonics <i>Bo Zhou, Jianfeng Wang, Huabin Wang</i>	
11:25-11:40	G010381	Experimental Study of Plasticity in Athermal Disordered Granular Solid <i>Jie Zhen, Jie Zhang</i>	
11:40-11:55	G040478	Mesoscale Investigation of Micron-sized Glass Particles – An Experimental Approach Enhanced by DEM Simulation <i>utz Torbahn, Arno Kwade, Alexander Weuster, Dietrich Wolf Lisa, Handl, Volker Schmidt</i>	
11:55-12:10	G020540	Investigation of Multi-Scale Circulating Fluidized Bed by TFM-CPFD Simulation and Measurement <i>Haigang Wang</i>	
Wednesday, 03/08/2016, 10:10 ~ 12:10 DEM in Mechanical Engineering Chair: Huiming Yin			Session E3 Multifunctional building #3, 301
10:10-10:35	G010195	Coupled DPD/DEM Modelling of Particle Sedimentation Toward Functionally Graded Material Manufacturing (invited) <i>C.S. Lin, Z.Y. Shou, F.L. Chen, H.M. Yin</i>	
10:35-10:50	G010283	DEM in Analyses of Nuclear Pebble Bed Reactors <i>Heikki Suikkanen, Juhani Hyvärinen, Ville Rintala</i>	
10:50-11:05	G010239	Application of the Discrete Element Method for Modelling of Drag Finishing Processes <i>Eckart Uhlmann, Alexander Eulitz, Arne Dethlefs, Tim Burmeister</i>	
11:05-11:20	G010296	Modified Modeling of Self-twist Process of Multistage Cable Based on Discrete Element Method <i>Shuming Jia, Dengming Wang, Xiaoqing Zheng</i>	
11:20-11:35	G010352	The Influence of Friction and Spray Angle on the Cap-to-band Coating Thickness Distribution of Tablets during the Spray Coating Process <i>Chunlei Pei, James Elliott</i>	
11:35-11:50	G010413	DEM Analysis of Interaction between Granular Materials and a Cutting Blade <i>Murino Kobayakawa, Takuya Tsuji, Toshitsugu Tanaka, Shinichiro Miyai</i>	

Wednesday, 3 August, 2016

13:30 ~15:00

Keynote Lecture

Chairs: Xiangjun Qiu, Felix Darve

**China Trade
Association Hall
Main Building**

13:30-14:05	Shunying Ji (<i>Dalian University of Technology, China</i>) Discrete Element Modeling of Ice Loads on Ship and Offshore Structures
14:05-14:40	Kloss Christoph (<i>DCS Computing GmbH & CFDEMresearch GmbH, Austria</i>) Simulation of Particulate Systems: Recent Advances and Remaining Challenges
14:40-15:00	Coffee Break

Wednesday, 3 August, 2106

15:00 ~17:10

Wednesday, 03/08/2016, 15:00 ~ 17:10

DEM-FEM Modeling of Granular Materials (2)

Chair: A.H.C. Chan

**Session A4
Main Building, B212**

15:00-15:25	G030274	Modeling the Particle Breakage by Using Combined DEM and SBFEM (<i>invited</i>) <i>T. Luo, E.T. Ooi, A.H.C. Chan, S.J. Fu</i>
15:25-15:40	G040573	Evaluation of DEM and FEMDEM in Modeling the Fracture Process of Glass under Hard-body Impact <i>Xinger Wang, Jian Yang, Tong Wang, Wuyue Xiong</i>
15:40-15:55	G010365	Study on Micro-mechanism of Concrete Hydraulic Fracturing Using DEM <i>Yan Yang, Tang Tat Ng, Zhengzhong Wang, Zongli Li</i>
15:55-16:10	G010263	From Micro to Macro: a Comparative Study of DEM and FEM in Modelling Hopper Flow <i>Qi Luo, Qijun Zheng, Aibing Yu</i>
16:10-16:25	G010314	Combined Finite-discrete Element Method Modeling of Rock Failure Problems <i>Wei Zhou, Wei Yuan, Xiaolin Chang</i>
16:25-16:40	G010561	A New Finite Discrete Element Approach for Heat Transfer in Complex Shaped Multi Bodied Contact Problems <i>Clément Joulin, Jiansheng Xiang, John Paul Latham, Christopher Pain</i>
16:40-16:55	G010538	A FEM and DEM Overlapping Model and Its Application to Geotechnical Problems <i>Chun Feng, Eugenio Oñate, Shihai Li</i>

Wednesday, 03/08/2016, 15:00 ~ 17:10 DEM in Multiphase Flow (3) Chair: Chuanyu Wu			Session B4 Main Building, B218
15:00-15:25	G010269	Electrostatics in Particle Systems: A DEM-CFD Study (invited) Chunlei Pei , Chuanyu Wu	
15:25-15:40	G010230	A Modified Sphere-cluster Method for Modeling the Discharge of Polyhedral Particles in a Hopper Nan Gui , Xingtuan Yang , Jiyuan Tu , Shengyao Jiang , Ziwei Zhang	
15:40-15:55	G010244	Adaptive Resolutions in Coupled CFD-DEM Simulations Daniel Queteschiner , Thomas Lichtenegger , Simon Schneiderbauer , Stefan Pirker	
15:55-16:10	G010473	Computationally Efficient Scheme for DEM Simulation of Wet Particles with Viscous Liquid Ei Leen Chan , Kimiaki Washino , Toshitsugu Tanaka	
16:10-16:25	G020332	LBDEM Coupling: Open-source Power for Fluid-particle Systems Philippe Seil , Stefan Pirker , Stefan Pirker	
16:25-16:40	G010393	Coupled CFD-DEM Simulations of Settling and Consolidation Processes of Dredged Slurries Yuanqiang Cai , Shanlin Xu , Honglei Sun , Heng Xiao , Rui Sun	
16:40-16:55	G020570	Another Two-dimensional FDEM-flow Method for Simulating Hydraulic Fracturing Chengzeng Yan	

Wednesday, 03/08/2016, 15:00 ~ 17:10 GPU-based High Performance DEM Computing Chair: Wei Ge			Session C4 Main Building, B217
15:00-15:25	G020539	Coarse-Grained Discrete Particle Simulation for Particle-fluid Flow (invited) Wei Ge , Liqiang Lu , Ji Xu	
15:25-15:40	G040415	Industrial Scale Particle Simulations on the GPU Using the Blaze-DEM Code Nicolin Govender , Daniel N Wilke , Raj Rajamani	
15:40-15:55	G010310	Analysis on Motion Behavior of Spherical Shell in a Periodical Shear Flow Based on CUDA Parallel Computing Technique Xuejie Jiang , Jian Li , Dongxu Wang , Jingwu Pan	
15:55-16:10	G010227	Simulation of Heat Transfer in Granular Systems with DEM on GPUs Ping Lin , Sheng Zhang , Xuezhi Zhang , Yuan Tian , Lei Yang	
16:10-16:25	G010201	GPU-based Discrete Element Simulation on the Burden Distribution in the Blast Furnace Xinxin Ren , Ji Xu , Limin Wang , Wei Ge	
16:25-16:40	G040525	GPU DEM Simulations and Experimental Studies of Ball Milling Process for Various Particle Shapes P. Pizette , N. Govender , N-E. Abriak , D. N. Wilke	
16:40-16:55	G010422	Computing Framework of Large-scale Dilated Polyhedral DEM Particles Simulation Based on GPU Chi Zhang , Yuxin Wang , Yulong Wang , Lu Liu , Shunying Ji , He Guo	
16:55-17:10	G040321	Computing with Non-convex Polyhedra on the GPU Daniel N Wilke , Nicolin Govender , Patrick Pizette , Nor-Edine Abriak	

Wednesday, 03/08/2016, 15:00 ~ 17:10 Geotechnical and Ocean Engineering Chair: Young-Hoon Jung			Session D4 Multifunctional building #3, 304
15:00-15:25	G040491	Investigating the Origin of the Soil Arch in the Trapdoor Problem: Photoelastic Measurement and Discrete Element Simulation (invited) Young Hoon Jung , Tae Gyun Kim , Danbi Shim , Sang Young Shin	
15:25-15:40	G010612	Optimizing Heavy Equipment for Handling Bulk Materials with AdaGEDEM Co-simulation (I) Yiqiu Deng , Ge Yang , Ji Li , Ming Gong , Wen Jiao	
15:40-15:55	G010612	Optimizing Heavy Equipment for Handling Bulk Materials with AdaGEDEM Co-simulation (II) Yiqiu Deng , Ge Yang , Ji Li , Ming Gong , Wen Jiao	
15:55-16:10	G010378	Influence of Zase Roughness on Kinematic and Mechanical Characteristics of Debris Flows Wei Zhou , Zhiqiang Lai , Lifu Yang , Gang Ma , Yuan Chen , Tianqi Qi	
16:10-16:25	G010477	Macro and Micro Structural Characteristics of Force Chains in Overlaying Strata above Top Caving Mining Face Xian-gang Han , J.-A. Wang , W.D. Pang , C. Liang	
16:25-16:40	G010382	DEM Simulation of Rubble Ice Accumulation in Water Intake of Nuclear Power Plant N. Xu , X. Long , S. Ji , X. Wang , H. Chen , Z. Yu , Z. Xu , W.Chen	
16:40-16:55	G010512	DEM Analysis of Passive Earth Pressure against Rigid Retaining Walls in Structured Sandy Backfill Mingjing Jiang , Maoyi Niu , Jie He , ChangFu	
16:55-17:10	G010222	Interaction between Floater and Sea Ice Simulated with Dilated Polyhedral DEM Lu Liu , Shanshan Sun , Shunying Ji	
Wednesday, 03/08/2016, 15:00 ~ 17:10 DEM in Agricultural Engineering Chair: Tang-Tat Ng			Session E4 Multifunctional building #3, 301
15:00-15:25	G010262	Sample Size Effect on DEM Simulations of Binary Mixture (invited) Tang-Tat Ng , Wei Zhou	
15:25-15:40	G010288	The DEM-based Digital Design Platform for Agricultural Machinery — AgriDEM Hong Fu , Cong Jin , Jian-qun Yu	
15:40-15:55	G040358	DEM Simulation of Multiscale Mechanical Behaviour of Granular Materials Jianmin Qin	
15:55-16:10	G010355	Investigation of the Shape, Dimensions and DEM Modelling Method of Maize Grains Xiaomei Wang , Fengyan Lv , Jian Liu , Jianqun Yu , Hong Fu	
16:10-16:25	G010533	Nonlinear Dynamic Mechanism of Soil Tillage under Straw Mulching Model Jikun Zhao , Shujun Huang , Lei Xing	
16:25-16:40	G010302	Study on Screening Efficiency of Banana Vibrating Screen Based on 3D DEM Simulation Jinpeng Qiao , Chenlong Duan , Yuemin Zhao , Haishen Jiang , Hairui Diao	
16:40-16:55	G010349	Study of Connection Mechanics Model and Mechanical Properties of Corn Kernel Carpoidium Based on DEM Yajun Yu , Jianqun Yu , Maojian Zhang , Jiyang Yu , Hong Fu	
16:55-17:10	G010354	Determination and Analysis for Parameters of Shape, Size, Physical and Mechanical Properties of Soybean Grains Fengyan Lv , Xiaomei Wang , Maojian Zhang , Hong Fu , Jianqun Yu	

Wednesday, 3 August, 2106

17:10 ~18:00

Formal Poster Session

China Trade Association Hall
Main Building

Investigation on the rate-dependent behavior of sands via DEM

Zhichao Wang, [Dumin Kuang](#), Tao Zhao

DEM Simulation of Particle Flow in a Parallel-hopper Bell-less Blast Furnace Charging Model

Jiayong Qiu, Yusong Xu, Jianliang Zhang, Dianchun Ju

3D DEM simulations and experiments study on projectile impacts into a granular bed

[Y.J.Li](#), A.Dove, D.Y.Tian

A new LBE-LES method for simulation of turbulent flows

[Wenhuan Zhang](#), Yihang Wang, Baochang Shi, Zhenhua Chai

Thursday, 4 August, 2016

Time: 09:00 ~10:10

Plenary Lecture

Chair: Aibing Yu

**China Trade
Association Hall
Main Building**

9:00-9:45	Xiaojing Zheng (<i>Xidian University, China</i>) DEM Analysis on Superconducting Cable
9:45-10:10	Coffee Break

Thursday, 4 August 2016

10:10 ~12:20

Thursday, 04/08/2016, 10:10 ~ 12:20

DEM in Chemical Engineering

Chair: Navid Mostoufi

**Session A5
Main Building, B212**

10:10-10:35	G020290	CFD-DEM Simulation of a Conical Spouted Bed Operating with High Density Particles (<i>invited</i>) <i>Shahab Golshan, Reza Zarghami, Navid Mostoufi, Murat Koksai, Gorkem Kulah</i>
10:35-10:50	G020450	Investigation of Hydrodynamics and Heat Transfer in Dense Fluidized Bed by Using LES-DEM Coupling Approach <i>Shuai Wang, Kun Luo, Chenshu Hu, Jianren Fan</i>
10:50-11:05	G020543	Numerical Simulation of Gas-solid Flow in a Wurster Fluidized Bed <i>Hang Zhou, Haigang Wang, Qiuya Tu</i>
11:05-11:20	G010553	CFD Simulation of Hydrodynamics of Three-dimensional Circulating Fluidized Beds with EMMS Model <i>Qiuya Tu, Haigang Wang, Hai Zhou, Wei Wang</i>
11:20-11:35	G010371	Fine Grid DEM Simulation of Internal Circulation Fluidized Bed <i>Guorong Wu, Jie Ouyang</i>
11:35-11:50	G010282	Erosion Prediction of Process Equipment by Using CFD-DEM Simulation <i>Lei Xu, Yongzhi Zhao</i>
11:50-12:05	G020441	Effect of Particle Rotation on the Heterogeneous Structure in Fluidized Bed by Use of Discrete Particle Model <i>Run-Jia Liu, Mao Ye, Rui Xiao, Zhongmin Liu</i>

Thursday, 04/08/2016, 10:10 ~ 12:20 DEM in Multiphase Flow (4) Chair: Shibo Kuang			Session B5 Main Building, B218
10:10-10:35	G020411	Lattice Boltzmann Investigation of the Negative Wake Behind Spherical Particles in Power-law Fluid Flows (invited) <i>Zheng Qi, Shibo Kuang, Liangwan Rong, Aibing Yu</i>	
10:35-10:50	G040339	A Comparative Study of Three Classes of Boundary Treatment Schemes for Coupled LBM/DEM Simulations <i>Jian Wu, Luc Scholtès, Anne-Julie Tinet, Michel Buès</i>	
10:50-11:05	G020309	An Integrated Particle Model for Fluid-Particle-Structure Interaction <i>Ke Wu, Dongmin Yang, Amirul Khan Nigel Wright</i>	
11:05-11:20	G020430	A CFD-DEM-PBM Model for Simulating the Fluidized Bed-chemical Vapor Deposition Coating Process <i>Malin liu, Rongzheng Liu, Tianjin Li, Jiaxing Chang, Bing Liu, Youlin Shao</i>	
11:20-11:35	G020408	Sedimentation of Solid Particles in a Fluid Considering Heat Transfer: A TLBM-DEM Study <i>Hao Zhang, Yingjuan Shao, Liyu Xie, Wenqi Zhong, Aibing Yu</i>	
11:35-11:50	G020472	An Upgraded CFD-DEM Investigation on the Shear Behavior of Sand under Cyclic Loads <i>Mingjing Jiang, Jun Liu, Chao Sun</i>	

Thursday, 04/08/2016, 10:10 ~ 12:20 Granular Flow (2) Chair: Christopher R. Leonardi			Session C5 Main Building, B217
10:10-10:25	G010202	On the Stress-Force-Fabric Relationship in Anisotropic Granular Materials <i>Ehsan Seyed Hosseinnia</i>	
10:25-10:40	G010228	Influence of Inclined Angles on the Stability of Inclined Granular Flows on Rough Bottoms <i>Guanghui Yang, Sheng Zhang, Ping Lin, Yuan Tian, Lei Yang</i>	
10:40-10:55	G010425	The Influence of Rotational Resistance on Critical State of Granular Materials <i>Xiaolin Chang, Yuting Wang, Wei Zhou, Gang Ma, Jiaying Liu</i>	
10:55-11:10	G010428	The Development of a Simplified System for Measuring the Passage of Particles on and Through Moving Screen Surfaces Using DEM <i>Olumide Ogunmodimu, Aubrey Mainza, J-P Franzidis, Indresan Govender</i>	
11:10-11:25	G020608	Study on Drag Force Coefficients in Modeling Granular Flows in a Slot-rectangular Spouted Bed <i>Huang Zhang, Shuiqing Li</i>	
11:25-11:40	G010240	Mixing and Segregation in Unsteady Granular Heap Flows <i>Hongyi Xiao, Paul B. Umbanhowar, Julio M. Ottino, Richard M. Lueptow</i>	

Thursday, 04/08/2016, 10:10 ~ 12:20 DEM Theory and Algorithm Chair: Shihai Li	Session D5 Multifunctional building #3, 304
--	--

- | | |
|---|--|
| Thursday, 04/08/2016, 10:10 ~ 12:20
Coarse-graining and Size Effect
Chair: Danesh K. Tafti | Session E5
Multifunctional building #3,
301 |
|---|--|
- 10:10-10:35 G010196 Advances in Continuum-Discontinuum Element Method (CDEM) (invited)
[Shihai Li](#), [Dehong Tang](#), [Zhiyong Fan](#), [Wenjie Duan](#), [Chun Feng](#), [Dong Zhou](#)
- 10:50-11:05 G040391 Improving Estimates of Critical Time-steps for Discrete Element Simulations
[Shane J. Burns](#), [Kevin J. Hanley](#)
- 11:05-11:20 G020576 Evolutions of Fabric and Contact Forces of Granular Materials under Continuously Varying B Value Using DEM
[Daraporn Phusing](#), [Kiichi Suzuki](#), [Piyapong Srirat](#)
- 11:20-11:35 G010455 Study of Fine Particles Percolation Process in Block Caving Method under Draw Based on Discrete Element method
[Tao Li](#), [Aixiang Wu](#), [Y.T.Feng](#)
- 11:35-11:50 G010551 Applicability Evaluation of Similarity Principle in Discrete Element Analysis
[Taeyoung Yun](#), [Heemun Park](#)
- 11:50-12:05 G040329 Numerical Experiments on the Hertz Chain and "Transparent" Solitary Waves
[Decai Huang](#), [Yoichi Takato](#), [Weizhong Chen](#), [Surajit Sen](#)
- 12:05-12:20 G010577 MercuryDPM: A Fast and Flexible Particle Solver Part A: Technical Advances
[Deepak Tunuguntla](#), [Thomas Weinhart](#), [Anthony Thornton](#), [AJ van der Horn](#)
[M van Schrojenstein-Lantman](#), [IFC Denissen](#), [CR Windows-Yule](#), [AC de Jong](#)

Thursday, 04/08/2016, 10:10 ~ 12:20 Coarse-graining and Size Effect Chair: Danesh K. Tafti	Session E5 Multifunctional building #3, 301
---	--

- | | |
|---|--|
| Thursday, 04/08/2016, 10:10 ~ 12:20
Coarse-graining and Size Effect
Chair: Danesh K. Tafti | Session E5
Multifunctional building #3,
301 |
|---|--|
- 10:10-10:35 G010224 Evaluation of Coarse Graining DEM Using Representative Particle Model (invited)
[Husam A. Elghannay](#), [Danesh K. Tafti](#)
- 10:35-10:50 G040313 Influence of Coarse-graining Parameters on the Analysis of DEM Simulation Results
[Thomas Weinhart](#), [Carlos Labra](#), [Stefan Luding](#), [Jin Ooi](#)
- 10:50-11:05 G010405 Determination of Micro-parameters in DEM through the Whole Surface Deformation Measurement in the Tri-axial Test
[Kuang Cheng](#), [Yin Wang](#), [Yan-Bao Mo](#), [Qing Yang](#)
- 11:05-11:20 G010331 Stochastic Discrete Element Modelling of Rough Particles
[T Zhao](#), [J Kato](#), [Y T Feng](#)
- 11:20-11:35 G030546 Study on the Multi-sphere Method Modeling the 3D Particle Morphology in DEM
[Yu Zhou](#), [Bo Zhou](#), [Jianmei Li](#), [Huabin Wang](#)
- 11:35-11:50 G010272 Verification of an Automated Work Flow for Discrete Element Material Parameter Calibration
[Michael Rackl](#), [Kevin J. Hanley](#), [Willibald A. Gunthner](#)
- 11:50-12:05 G010614 Discussion on the Difference of the Grain Particle Parameters in Realistic and EDM
[Huinan Sun](#), [Zhuoqing Zhang](#)

Thursday, 4 August, 2016

Time: 13:30 ~14:45

Thursday, 04/08/2016, 13:30 ~ 14:45

Influence of Particle Shape

Chair: Xinbao Yu

Session A6

Main Building, B212

- 13:30-13:45 G030278 Influence of Particle Shape on Mechanical Behavior of Granular Materials
Wei Zhou, Kun Xu, Lifu Yang, Gang Ma
- 13:45-14:00 G010600 Study on the Microscopic Structure and the Bearing Capacity of the Elliptical Granular System in the Random Particle Size
Zhengguo Gao, Zhichang Li, Mohammad Alam
- 14:00-14:15 G030389 Effect of Particle Shape on the Formation of Sandpile
Beibing Dai, Jun Yang, Cuiying Zhou, Wei Zhang
- 14:15-14:30 G030426 The Influence of Particles' Aspect Ratio on the Shear Behaviour of Granular Materials
Y.H. Xie, Z.X. Yang, D. Barreto
- 14:30-14:45 G030545 Particle Shape Consideration in DEM Triaxial Test Simulations
Mohammad Mohammadnia, Ali A. Mirghasemi

Thursday, 04/08/2016, 13:30 ~ 14:45

DEM Related Methods

Chair: Qinglin Duan

Session B6

Main Building, B218

- 13:30-13:45 G010237 Equilibrium Distribution Functions in Entropic Lattice Boltzmann Method
Qiang Liu, Wei Xie, Yan Wang
- 13:45-14:00 G010432 Investigation of Morphological Fidelity through Morphometric Study
Yufeng Su, Bin Zhang, Seung Jae Lee, Beena Sukumaran
- 14:00-14:15 G040367 Elasticity Constants of Clay Minerals Based on Molecular Dynamics Simulations
Jinming Xu, Chengliang Wu, Dayong Huang
- 14:15-14:30 G010558 Application of the Method of Peridynamics to the Simulation of Hydraulic Fracturing Process
Fan Wu, Shuhui Li, Qinglin Duan, Xikui Li
- 14:30-14:45 G010466 Application of the Coupled Discrete Element Modelling and Modelica Based Multi-body Dynamics in System-level Modelling
Wei Chen, Marc van Etten, Timothy Donohue, Kenneth Williams

Thursday, 04/08/2016, 13:30 ~ 14:45

Granular Flow (3)

Chair: Jie Zhang

Session C6

Main Building, B217

- 13:30-13:45 G040429 Basal Effect in Mono- and Bi-disperse Chute Flows
Lu Jing, Fiona C.Y. Kwok, Andy Y.F. Leung, Yuri D. Sobral, Fiona C.Y. Kwok, Andy Y.F. Leung, Yuri D. Sobral
- 13:45-14:00 G020495 A DEM Analysis of Particle Climbing in a Vibrating Pipe
Fengxian Fan, Ju Liu, Mingxu Su
- 14:00-14:15 G020535 Studies of the Performance of Particle Dampers in Centrifugal Fields and the Influence of Recovery Coefficient on Vibration Suppression
Wangqiang Xiao, Jian Li

- 14:15-14:30 G010326 Numerical Simulation of the Particular Flow on an Agricultural Screen with a Complex Motion Based on the Coupling Model of PMBK with DEM
[Yang Wang](#), [Jianqun Yu](#), [Yajun Yu](#), [Hong Fu](#)
- 14:30-14:45 G040416 Testing the Accuracy of DPM Models for Granular Systems – a Comparison with Positron Emission Particle Tracking
[Kit Windows-Yule](#), [A. R. Thornton](#), [D. J. Parker](#)

Thursday, 04/08/2016, 13:30 ~ 14:45 DEM in Transport Engineering Chair: Chunfa Zhao	Session D6 Multifunctional building #3, 301
--	--

- 13:30-13:45 G010238 Material Transport Study into a SAG Mill by DEM IMPACT on the Inclination of Lifter
[Alejandro Gutierrez](#), [Fernando Lillo](#), [Sebastián Ugalde](#)
- 13:45-14:00 G010360 Simplified Multi-sphere Model-based DEM Simulation of Particle Behavior in Hopper During Ship Loading for Dust Control
[Yuan Tan](#), [Willibald A. Günthner](#), [Stephan Kessler](#)
- 14:00-14:15 G010366 DEM Analysis of Ballast Breakage under Train Loads and Its Effect on Mechanical Behavior of Railway Track
[Xu Zhang](#), [Chunfa Zhao](#), [Wanming Zhai](#)
- 14:15-14:30 G010194 Dynamic Simulation in Ostrich Didactyl Foot Locomotion on Sand Based on Discrete Element Method
[Rui Zhang](#), [Qiaoli Ji](#), [Songsong Ma](#), [Dianlei Han](#), [Gang Luo](#), [Shuliang Xue](#), [Jianqiao Li](#)
- 14:30-14:45 G010581 Discharging Trajectory of the Bucket Wheel Stacker-reclaimer Based on DEM
[Yu Li](#), [Gongbo Yang](#), [Jiquan Hu](#), [Wenming Han](#)

Thursday, 04/08/2016, 13:30 ~ 14:45 Cohesive Model Chair: Lianfeng Liu	Session E6 Multifunctional building #3, 301
---	--

- 13:30-13:45 G010258 Experimental and Numerical Study of Yielding Flow of Cohesive Powder
[Hao Shi](#), [Abhinendra Singh](#), [Stefan Luding](#), [Vanessa Magnanimo](#)
- 13:45-14:00 G010341 Description of Location Dependent Properties of Pharmaceutical Tablets and Its Implementation in an Elasto-plastic Cohesive Model
[Ramon Cabiscol](#), [Lutz Torbahn](#), [Harald Zetzener](#), [Arno Kwade](#)
- 14:00-14:15 G020403 CFD-DEM Simulation of Flocculation and Sedimentation of Cohesive Fine Particles
[Liuchao Qiu](#), [Jiajie Liu](#), [Yi Liu](#), [Pengzhi Lin](#)
- 14:15-14:30 G010312 Simulations of Agglomerate Impact Using Autoadhesive Elastic-plastic Particle
[Lianfeng Liu](#), [Colin Thornton](#), [Stephen James Shaw](#)
- 14:30-14:45 G010493 Numerical Analysis of the Effect of Particles' Cohesivity Adhesivity on Segregation of Powder Mixtures
[Mohammadreza Alizadeh Behjani](#), [Ali Hassanpour](#), [Mojtaba Ghadiri](#), [Andrew Bayly](#), [Maryam Asachi](#)

Thursday, 04 August 2016,

15:10 ~17:00

Keynote Lecture

Chairs: Mingjing Jiang, Kloss Christoph

China Trade
Association Hall
Main Building

15:10-15:45	Yuntian Feng (<i>Swansea University, UK</i>) A General Contact Theory for Non-spherical Particles
15:45-16:20	Mikio Sakai (<i>The University of Tokyo, Japan</i>) State-of-the-Art Discrete Element Modeling for Simulations of Industrial Systems
16:20-17:00	Closing Ceremony ● Conference Summary; ● Excellent student papers Awards; ● Presentation of the DEM8 Host.