

Day 1

7:00 to 7:15 PDT	Opening Ceremony		
7:15 to 8:00 PDT	Plenary Lecture 1 Raffaella Ocone Sticking together: is unity strength? <i>Heriot-Watt University, UK</i>		
8:00 to 8:45 PDT	Modeling (1)	Hydrodynamics (1)	Gasification
# of papers	6	6	6
	Chunhua Zhang Numerical Investigation of Flow Fields in a Novel Methanol-to-Olefins Reactor <i>China University of Petroleum, China</i>	Andreas Klingler Cold Flow Model Study on the Operability of a Multistage-Fluidized-Bed Column with Deep Bubbling Beds <i>University of Natural Resources and Life Sciences, Austria</i>	Antti Pitkääoja Modeling of Sorbent Enhanced Gasification Utilizing Waste-Derived Fuel <i>Lappeenranta-Lahti University of Technology, Finland</i>
	Sam Clark Considerations for Practical Industrial CFD Simulations of Fluidized Systems <i>CPFD Software, USA</i>	Guillermo Martinez Castilla Dynamic Modeling of the Flue Gas Side of Large-Scale Circulating Fluidized Bed Boilers <i>Chalmers University of Technology, Sweden</i>	Zhen Chai Effect of Oxygen to Carbon Ratio on Sulfur, Nitrogen and Tar Conversion in Circulating Fluidized Bed Gasification <i>Chinese Academy of Sciences, China</i>
	Navid Mostoufi CFD-DEM Investigation of Wall Sheeting in Gas-Solid Fluidized Bed considering Electrostatic Effects <i>University of Tehran, Iran</i>	Yanqin Li Characteristics on Sound Propagation in Packed Beds <i>Zhengzhou University, China</i>	Selina Hafner Investigation of the Sorption Enhanced Gasification Process in a Dual Fluidized Bed Pilot Plant Using a Waste-Derived Fuel <i>University of Stuttgart, Germany</i>
	Enrica Masi Effect of Wall Boundary Conditions on 3D Hydrodynamic Numerical Simulation of a CLC Unit with Dual Circulating Fluidized-bed Reactors	Kaicheng Chen An Investigation of Particle Mixing in Continuous Fluidized Bed through Different Methods <i>Otto von Guericke University, Germany</i>	Robin Faust Laboratory Study of Interactions Between Biomass Ash and Alkali-Feldspar Bed Material <i>Chalmers University of Technology, Sweden</i>

	<i>Université de Toulouse, France</i>		
	<p>Mohammad Abdur Rakib</p> <p>Resid Fluid Catalytic Cracking (Rfcc) Unit Model Development for a Dual-Riser 2-Stage Regenerator Configuration</p> <p><i>Abu Dhabi National Oil Company (ADNOC) Refining, UAE</i></p>	<p>Harshal Gamit</p> <p>Fluidization of Bidisperse Mixture</p> <p><i>Indian Institute of Technology Bombay, India</i></p>	<p>Saurabh Gupta</p> <p>Hydrodynamic Behaviour of a Dual Fluidized Bed Designed for the High Ash Coal Gasification</p> <p><i>Indian Institute of Technology Kanpur, India</i></p>
	<p>Frederik Zafiryadis</p> <p>Three-Dimensional Full-Loop Simulation of Cold Gas-Solid Flow in a Pilot-Scale Dual-Fluidized Bed System</p> <p><i>Technical University of Denmark, Denmark</i></p>	<p>Dongfang Li</p> <p>An Experimental Study on Limestone Attrition during Sulfation in a Fluidized Bed Reactor</p> <p><i>Pusan National University, Korea</i></p>	<p>Binxuan Zhou</p> <p>The Study of Co-production of Coal Gas and Powdered Activated Coke Based on Fluidized Bed</p> <p><i>Shandong University, China</i></p>
8:45 to 9:30 PDT	Modeling (2)	Hydrodynamics (2)	CO₂ capture
# of papers	6	6	6
	<p>Lennard Lindmüller</p> <p>Flowsheet Simulation of a Chemical Looping Combustion Process for Solid Fuels</p> <p><i>Hamburg University of Technology, Germany</i></p>	<p>Sina Tebianian</p> <p>Hydrodynamic Characterization of 1.5 MW Chemical Looping Combustion Cold Flow Model</p> <p><i>IFP Energies nouvelles, France</i></p>	<p>Bill Long Cheng</p> <p>Sorbent-Enhanced Biochar- Direct Chemical Looping Process for Hydrogen Production with CO₂ Capture</p> <p><i>University of British Columbia, Canada</i></p>
	<p>Pascal Fede</p> <p>The Filtered Approach for Numerical Prediction of An Industrial-Scale FCC Regenerator</p> <p><i>Université de Toulouse, France</i></p>	<p>Hansen Silitonga</p> <p>Evolution and Flow of Vapors in a Fluidized Bed</p> <p><i>Western University, Canada</i></p>	<p>Farnaz Esmaeili Rad</p> <p>CFD Simulation of Gas Particle Flows in a CFB Carbon Capture Unit Using Solid Sorbents</p> <p><i>Illinois Institute of Technology, USA</i></p>
	<p>Timo Dymala</p> <p>The MP-PIC Method for CFD-Simulation of Biomass Gasification in a Lab-Scale Fluidized Bed</p> <p><i>Hamburg University of Technology, Germany</i></p>	<p>Mikel Tellabide</p> <p>Spouting Regimes of Fine Particles in Fountain Confined Conical Spouted Beds</p> <p><i>University of the Basque Country, Spain</i></p>	<p>Qinhui Wang</p> <p>Experiments on CO₂ Adsorption Performance of New Calcium-Based Absorbent Modified with High Aluminous Cement</p> <p><i>Zhejiang University, China</i></p>

	<p>Yang Liu</p> <p>Numerical Investigation of Flow and Reaction Processes in a Dual-CFB Coal Gasifier Using the QC-EMMS Drag Model</p> <p><i>Tsinghua University, China</i></p>	<p>Benjamin Amblard</p> <p>Evaluation of the Cfd Code Openfoam for the Extrapolation of Circulating Fluidized Bed Hydrodynamic with Group a Particles</p> <p><i>IFP Energies nouvelles, France</i></p>	<p>Arian Ebneyamini</p> <p>Equilibrium Analysis of the Pressurized Sorbent Regeneration by Combining Methane Reforming, Combustion and Calcination</p> <p><i>University of British Columbia, Canada</i></p>
	<p>Paul Kieckhefen</p> <p>Predicting Product Properties of Fluidized Bed Spray Granulation Using CFD-DEM Simulations</p> <p><i>Institute of Solids Process Engineering and Particle Technology, Germany</i></p>	<p>Hao Kong</p> <p>The Dynamic Characteristics of Gas Solid Flow in CFB Full-loop</p> <p><i>Tsinghua University, China</i></p>	<p>Fabrizio Scala</p> <p>Performance of Different H2O Sorbents for Fluidized Bed Sorption-Enhanced Methanation</p> <p><i>Università degli Studi di Napoli Federico II, Italy</i></p>
	<p>Xiandong Liu</p> <p>CPFD Simulation and Equipment Design of a Novel Fluidized Bed Desulfurization Wasterwater Dryer</p> <p><i>Tsinghua University, China</i></p>	<p>Jaroslaw Krzywanski</p> <p>A Generalized Fluidization Map for Bubbling and Fast Fluidized Beds by an Artificial Intelligence Approach</p> <p><i>Jan Dlugosz University in Czestochowa, Poland</i></p>	<p>Fabio Montagnaro</p> <p>The Attrition Behaviour of a Limestone-Based Sorbent for Sorption-Enhanced Gasification in Dual Fluidised Beds</p> <p><i>Università degli Studi di Napoli Federico II, Italy</i></p>
9:30 to 9:40 PDT	Sponsor show case #1		
9:40 to 10:30 PDT	Virtual booth	9:40-	Social networking

Day 2

7:00 to 7:30 PDT	Tribute to fluidization researchers		
7:30 to 8:15 PDT	<p>Plenary Lecture 2</p> <p>Wei Ge</p> <p>Direct Numerical Simulation of Particle-Fluid Systems</p> <p><i>Chinese Academy of Sciences, China</i></p>		
8:15 to 9:00 PDT	Modeling (3)	Fluidized bed with liquid injection	Design & Scale-up
	6	6	6
	<p>Shahong Zhu</p> <p>Development and Validation of a Steady Flowsheet Model for a Supercritical Circulating Fluidized Bed Boiler</p> <p><i>Tsinghua University, China</i></p>	<p>Yuan Li</p> <p>Impact of Local Fluidized Bed Hydrodynamics on the Distribution of Liquid Sprayed into the Bed</p> <p><i>Western University, Canada</i></p>	<p>Tadaaki Shimizu</p> <p>Rotating Coil-Shaped Spiral Gas-Solid Reactor</p> <p><i>Niigata University, Japan</i></p>
	<p>Jiajie Du</p> <p>Stochastic Simulation of Spray Agglomeration Process in a Continuously Operated Horizontal Fluidized Bed by Monte Carlo Method</p> <p><i>Otto von Guericke University Magdeburg, Germany</i></p>	<p>Yan Zhao</p> <p>Effect of Liquid Addition on Gas-Solid Fluidization</p> <p><i>Chongqing University, China</i></p>	<p>Gerd Strenzke</p> <p>Experimental Investigation of Process Behaviour of Continuous Fluidized Bed Spray Agglomeration with Internal Classification</p> <p><i>Otto von Guericke University, Germany</i></p>
	<p>Carlos Montilla</p> <p>Algebraic Closure Model Coupling the Particle Charge-Velocity Covariance and Charge Variance in Gas-Solid Flow with Triboelectric Charging</p> <p><i>Université de Toulouse, France</i></p>	<p>Manuel Janocha</p> <p>Analysis of Drying Parameter Effects on Porosity Evolution during Successive Layer Build-up from Dried Deposited Droplets</p> <p><i>Otto von Guericke University, Germany</i></p>	<p>Ulrich Muschelknautz</p> <p>Economic Gas Cleaning by Inline-Particle-Collectors</p> <p><i>MK Engineering - Dust Removal Technology, Germany</i></p>
	<p>Riccardo Uglietti</p> <p>Microkinetic Modeling of Catalytic Reactions in Million Particles Bubbling Beds</p>	<p>Cedric Briens</p> <p>Behaviour of Agglomerates formed by Liquid Injection in Fluidized Beds</p>	<p>J. Ruud van Ommen</p> <p>Product Design of Powder for 3D Printing</p>

	<i>Politecnico di Milano, Italy</i>	<i>Western University, Canada</i>	<i>Delft University of Technology, Netherlands</i>
	<p>Alberto Di Renzo Coarse-grain DEM-CFD Modelling of Cyclone Flow <i>Università della Calabria, Italy</i></p>	<p>Cedric Briens Spraying Slurries: Impact of Slurry Properties on Spray Characteristics and Agglomerate Formation in Fluidized Beds <i>Western University, Canada</i></p>	<p>Mengxi Liu Novel Coupled Fluidized Bed Reactor for Pyridine Synthesis <i>China University of Petroleum, China</i></p>
	<p>Mohammad Abdur Rakib Root Cause Analysis of Afterburn in Rfcc Regenerator Using Computational Fluid Dynamics <i>Abu Dhabi National Oil Company (ADNOC) Refining, UAE</i></p>	<p>Maike Orth Influence of Process Parameters on the Granule Morphology During Fluidized Bed Spray Granulation <i>Hamburg University of Technology, Germany</i></p>	<p>Tingwen Li Scale-up of Rotating Fluidized Bed Reactor Through Numerical Simulations <i>SABIC, USA</i></p>
9:00 to 9:30 PDT	Hydrodynamics (3)	Heat/mass transfer	NOx/Sox (1)
# of papers	4	4	4
	<p>Xudong Zhong Hydrodynamics of a Cold Model Fluidized Bed with Multiple Inclined Downward Nozzles <i>China University of Petroleum, China</i></p>	<p>Elija Talebi Maximizing Heat Transfer for Energy Storage Application - Design of a Continuous Fluidized Bed Cold Model <i>Technical University of Munich, Germany</i></p>	<p>Xiangru Jia No and SO2 Emission Characteristics of Coal Gangue and Sunflower Stalk Co-combustion in Bubbling Fluidized Bed <i>College of Energy and Power Engineering, China</i></p>
	<p>Youssef Badran Effect of Van Der Waals Force on Fluidization of Fine Particles <i>Université de Toulouse, France</i></p>	<p>Zhiqiang Wu Thermodynamic and Kinetic Analysis on Chemical Looping Conversion of Lignocellulosic Biomass <i>Xi'an Jiaotong University, China</i></p>	<p>Yuan Xiao Experimental Study on the Influence of Excess Air Ratio in the Furnace of CFB with Post-Combustion on NOx Emission <i>Chinese Academy of Sciences, China</i></p>
	<p>Boyu Deng Study on the Dynamic Characteristic of the</p>	<p>Zhiqiang Wu Gas-Solid Convection Heat Transfer of Particle</p>	<p>Ziqu Ouyang Experimental Research on Combustion and Nox</p>

	<p>Circulating Fluidized Bed Whole Loop at Variable Load</p> <p><i>Tsinghua University, China</i></p>	<p>from Moving-Bed During Heat Recovery from Centrifugal Granulation of Furnace Slag</p> <p><i>Xi'an Jiaotong University, China</i></p>	<p>Emission Characteristics of High Temperature Preheated Pulverized Coal on a 2 Mw Pilot Plant</p> <p><i>Chinese Academy of Sciences, China</i></p>
	<p>Zihan Yan</p> <p>Cluster Characteristics in the Jet Mixing Zone of Fast Fluidized Bed</p> <p><i>China University of Petroleum, China</i></p>	<p>Ling Jiang</p> <p>Safety Evaluation of the Immersed Tube in an External Heat Exchanger of a Circulating Fluidized Bed Boiler in Case of Electricity Supply Failure</p> <p><i>Tsinghua University, China</i></p>	<p>Xingxing Cheng</p> <p>A System of Gaseous Pollutants Removal for Coal-Fired Facilities</p> <p><i>Shandong University, China</i></p>
9:30 to 9:40 PDT	Sponsor show case #2		
9:40 to 10:30 PDT	Virtual booth	9:40-	Social networking

Day 3

7:00 to 7:45 PDT	<p>Plenary Lecture 3</p> <p>Alissa Park</p> <p>Towards Sustainable Energy and Materials: CO2 Capture using Novel Nanoscale Hybrid Particulate Systems</p> <p><i>Columbia University, USA</i></p>		
7:45 to 8:15 PDT	Modeling (4)	Combustion	Industrial experience
# of papers	4	4	4
	<p>Abhinandan Kumar Singh</p> <p>Stochastic Simulation of Spray Fluidized Bed Agglomeration by Modeling the Morphology</p> <p><i>Otto von Guericke University, Germany</i></p>	<p>Robert Symonds</p> <p>Configuration Assessments for Oxy-Pressurized FBC</p> <p><i>CanmetENERGY, Canada</i></p>	<p>Xiwei Ke</p> <p>Operation Characteristics of a 90 t/h Indonesian Coal-fired Circulating Fluidized Bed Boiler</p> <p><i>Tsinghua University, China</i></p>
	<p>Dong Yang</p> <p>Wall Temperature Calculation and Safety Analysis for the Water Wall of 660MW Ultra-Supercritical Circulating Fluidized Bed Boiler</p> <p><i>Xi'an Jiaotong University, China</i></p>	<p>Dennis Lu</p> <p>Investigation of OCAC Process Using Canadian Ilmenite Ore in a Circulating Fluidized Bed Combustor</p> <p><i>CanmetENERGY, Canada</i></p>	<p>Kunlin Cong</p> <p>Development and Application of Turbulent Fluidized Bed for Incineration of Multiple Wastes</p> <p><i>Tsinghua University, China</i></p>
	<p>Farid Chejne Janna</p> <p>A Novel Population Balance-Based Model for Bubbling Fluidized Bed Reactor</p> <p><i>Universidad Nacional de Colombia, Colombia</i></p>	<p>Yuge Yao</p> <p>Prediction of the Bed Temperature of a CFB Boiler after a Sudden Power Cut</p> <p><i>Tsinghua University, China</i></p>	<p>Håkan Kassman</p> <p>Operational Challenges in a BFB Boiler Firing Demolition Wood with Addition of Ammonium Sulphate to Reduce Superheater Corrosion</p> <p><i>Vattenfall AB, Sweden</i></p>
	<p>Wenming Liu</p> <p>CFD Simulation of Bubbling Fluidized Bed Using Emulsion-based Structural Drag Model</p> <p><i>Sinopec Research Institute of Petroleum Processing, China</i></p>	<p>Patrik Yrjas</p> <p>Formation of NH4Cl and Its Role on Cold-end Corrosion in CFB Combustion</p> <p><i>Åbo Akademi University, Finland</i></p>	<p>Dajun Wang</p> <p>Study on Uniform Air Distribution System for Large-Size Circulating Fluidized Bed Boilers</p> <p><i>Sichuan Electric Power Industry Commission and Testing Institute, China</i></p>
8:15 to 9:30 PDT	Workshop 1	Workshop 2	Workshop 3

	Applications and Advances of CFD Applied to Fluidized Beds	Liquid Injection into Gas-Fluidized Beds	Large Diameter Fluidized Beds
9:30 to 9:40 PDT	Sponsor show case #3		
9:40 to 10:30 PDT	Virtual booth	9:40-	Social networking

Day 4

7:00 to 7:45 PDT	<p>Plenary Lecture 4</p> <p>Filip Johnson</p> <p>Future Applications of the Circulating Fluidized Bed Technology</p> <p><i>Chalmers University of Technology, Sweden</i></p>		
7:45 to 8:30 PDT	Hydrodynamics (4)	Electrostatics	FCC & other processes
# of papers	5	5	6
	<p>Yongmin Zhang</p> <p>Effect of Solids Inlet and Outlet on Hydrodynamics of Bubbling Fluidized Beds with Macro Solids Circulation</p> <p><i>China University of Petroleum, China</i></p>	<p>Chen Li</p> <p>Drying of Pharmaceutical Granules in a Pulsed Fluidized Bed</p> <p><i>University of Saskatchewan, Canada</i></p>	<p>Ray Cocco</p> <p>Attributes of an Eccentrically Positioned Vortex Finder on Primary Cyclones</p> <p><i>Particulate Solid Research, Inc., Germany</i></p>
	<p>Tolu Emiolasadiq</p> <p>Binary Mixing and Segregation of Biomass and Silica Sand in a Fluidized Bed</p> <p><i>University of Saskatchewan, Canada</i></p>	<p>Farzam Fotovat</p> <p>A Perspective on Electrostatics in Gas-Solid Fluidized Beds: Challenges and Future Research Needs</p> <p><i>Sharif University of Technology, Iran</i></p>	<p>Alberto Di Renzo</p> <p>Experimental Investigation of Segregation Direction and Layer Inversion in Liquid Fluidized Beds</p> <p><i>Università della Calabria, Italy</i></p>
	<p>Anna Köhler</p> <p>The Gas-Solid Suspension Drag on Large Particles in the Transport Zone of a Circulating Fluidized Bed</p> <p><i>Chalmers University of Technology, Sweden</i></p>	<p>Milad Taghavivand</p> <p>Impact of an Electrostatically Charged Silica Powder Pneumatically Injected into a Polyethylene Fluidized Bed at Different Fluidization Times</p> <p><i>University of Ottawa, Canada</i></p>	<p>Rongyi Zhang</p> <p>Coating of Fine Particles in Fluidized Bed Using Fog Generator</p> <p><i>Otto von Guericke University, Germany</i></p>
	<p>Allan Issangya</p> <p>A Review of Performance Characteristics of Fluidized Bed Stripping Internals</p> <p><i>Particulate Solid Research, Inc., USA</i></p>	<p>Yong Yang</p> <p>Triboelectrostatic Separation of Polyvinyl Chloride and Silica Glass Using a Pulsed Fluidized Bed</p> <p><i>China University of Mining and Technology, China</i></p>	<p>Mahdi Sharifian</p> <p>The Role of Operating Parameters on the Performance of the Catalytic High Temperature Fischer-Tropsch Synthesis in Fluidized Bed Reactor</p>

			<i>Polytechnique Montreal, Canada</i>
	<p>John Grace Fluid-Driven Jamming in Fluidized Beds <i>University of British Columbia, Canada</i></p>	<p>Mohsen Nimvari Effect of Temperature on Polyethylene Electrostatic Charging in an Atmospheric Gas-Solid Fluidized Bed <i>University of Ottawa, Canada</i></p>	<p>Qi Xu Using Machine Learning to Elucidate the Kinetics of Cracking Reactions in a Down Flow Reactor System <i>Saudi Aramco, Saudi Arabia</i></p>
			<p>Maurizio Troiano Fluidized Bed Machining of Metal Objects Produced by Additive Manufacturing <i>Università degli Studi di Napoli Federico II, Italy</i></p>
8:30 to 9:15 PDT	Measurement & instrumentation	Pyrolysis	NOx/Sox (2)
# of papers	6	6	4
	<p>Chen Li Synchrotron-Based X-ray In-Situ Imaging Techniques for Advancing the Understanding of Pharmaceutical Granulation <i>University of Saskatchewan, Canada</i></p>	<p>Zhennan Han Fluidized Bed Calcination of Magnesite and Its Chemical and Morphological Changes <i>Shenyang University of Chemical Technology, China</i></p>	<p>Miao Miao Study on Emission Characteristics of Nox and N2O From CFB Boilers <i>Tsinghua University, China</i></p>
	<p>Tomas Leffler Combined Measurement Techniques for Fast Detection of Alkali Release in Fluidized Bed Combustion <i>Chalmers University of Technology, Sweden</i></p>	<p>Yuan Liu Preparation of Long-chain Oxygenated Fuels Precursor by Cellulose Ethanolysis <i>Southeast University, China</i></p>	<p>Haifeng Zan Effect of Pressure and Steam on Nox Emission During Oxy-Fuel Combustion <i>Southeast University, China</i></p>
	<p>Leming Cheng Measurement of Supercritical Fluid Flow Uniformity in Parallel</p>	<p>Xianhua Wang Biomass Catalytic Pyrolysis for BTX Production: A Study of ZSM-5 Modification</p>	<p>Franz Winter NO and Ultrafine Particles Formation during the Combustion of Single Biomass</p>

	Tubes by a Fluid-to-Fluid Modelling Method <i>Zhejiang University, China</i>	<i>Huazhong University of Science and Technology, China</i>	Particles under FBC Conditions <i>Technical University of Sofia, Bulgaria</i>
	Guilherme Lindner A New Method for Calibration of Radioactive Particle Tracking Systems Using Computational Fluid Dynamics and Monte Carlo Simulation Data <i>University of British Columbia, Canada</i>	Ruixu Wang Measurement of Residence Time Distribution of Sawdust in a Horizontal Fluidized Bed with Gas Pulsation <i>University of British Columbia, Canada</i>	Adam Luckos NOx and N2O Emissions During Oxy-Fuel Combustion of Bituminous Coal and Lignite in A Circulating Fluidized Bed Combustor <i>Czestochowa University of Technology, Poland</i>
	Kai Huang Effect of Noise in Electrical Capacitance Tomography Measurements of Fluidized Bed Hydrodynamics <i>Chinese Academy of Sciences, China</i>	Francisco Sanchez Careaga Effect of Mixing Quality on Agglomerate Formation in a Fluid Coking Reactor <i>Western University, Canada</i>	
	Carlos Montilla Building a Training Database from Numerical Simulations for Artificial Neural Network to Reconstruct ECVT Images <i>Université de Toulouse, France</i>	Yohann Cochet Mitigation of Fouling in a Fluid Coker: Influence of Column Geometry, Internals and Operating Conditions on Gas and Particle Behaviors in a Cold Fluidized Bed with Downward Solids Circulation <i>Western University, Canada</i>	
9:15 to 9:25 PDT	Sponsor show case #4		
9:25 to 10:15 PDT	Virtual booth	9:25-	Social networking

Day 5

7:00 to 7:45 PDT	Plenary Lecture 5 Michael Wormsbecker Advancements in Fluidized Bed Coking Technology at Syncrude <i>Syncrude Research Centre, Canada</i>		
7:45 to 8:30 PDT	Plenary Lecture 6 Behzad Jazayeri Fluid Bed Systems for Chemical synthesis An Engineer's Perspective on Design and Scale-up <i>USA</i>		
8:30 to 8:45 PDT	Fluidization achievement award		
8:45 to 8:55 PDT	Best paper prize		
8:55 to 9:25 PDT	CFB conference series celebration		
9:25 to 9:40 PDT	Closing ceremony		
9:40 to 9:50 PDT	Sponsor show case #5		
9:50 to 10:40 PDT	Virtual booth	9:50-	Social networking