TUESDAY JUNE 10

Time	AUDITORIUM R1	AUDITORIUM R2	AUDITORIUM R4
0800-0830	Registration		
0830-0855	Opening		
0855-0940	**Keynote: Michael Graham,** University of Wisconsin *Drag reduction and viscoelastic turbulence in polymer solutions: toward a unified framework*		
0945-1115	**Session R1-01: Drag Reduction/Flow Acoustics**	**Session R2-01: Population Balance**	**Session R4-01: Flotation**
0945-1015	Lead paper CFD08-096: *High Frequency Dynamics in Centrifugal Compressors,* A.Twerda, D.Meulendijks, J.Smeulers, R.van den Handel & L.van Lier	Lead Paper CFD08-025: *A Population Balance Approach for Polydispersed Bubbly Flows Considering size Dependent Bubble Forces* E.Krepper, T.Frank, D.Lucas, H-M.Prasser & P.J.Zwart	Lead paper CFD08-029: *Numerical Modelling of Non-Newtonian Slurry in a Mechanical Flotation Cell,* C.Bakker, C.J. Meyer & D.A.Deglon
1015-1035	CFD08-101: *A Phenomenological Model of Aero-Acoustic Wave Propagation in Low Mach Number Corrugated Pipe Flow,* M.Popescu & S.T.Johansen	CFD08-004: *Prediction of Inclusion Size and Composition in Liquid Steel,* L.Claudotte, P.Gardin, M.Simonnet, N.Rimbert, B.Oesterlé & J.Lehmann	CFD08-040: *A Numerical Model for a Flotation Cell,* M.Streng & O.Wünsch
1035-1055	CFD08-023: *DNS Experiments in Taylor-Couette Geometry: Case of Drag-reducing Fluids,* S.Guillou & R.Makhloufi	CFD08-060: *CFD Modelling Coupled to Population Balance to Describe Bubble Size Distribution in Agitated Vessels and Bubble Columns,* M.Petitti, *et.al.*	CFD08-052: *Development of Automatic Algorithm for Combining CFD and Multiblock Modelling and Application to Flotation Cell,* M.Seppälä, M.Laakkonen, M.Manninen, V.Alopaeus & J.Aittamaa
1055-1115	CFD08-094: *Drag Reduction in Swirling Pipe Flow,* F.Nygård & H.I.Andersson	CFD08-080: *Implementation of the Sectional Quadrature Method of Moments in a CFD code,* C.Drumm, M.Attarakih, S.Tiwari, J.Kuhnert & H.-J. Bart	CFD08-007: *Coupling of CFD and Discrete Calculation of the PBE: Application to the Inclusion Removal by Flotation,* J.P.Bellot, O.Mirgaux, D.Ablitzer & E.Waz
1115-1145	Coffee Break		
1145-1315	**Session R1-02: Meshfree Methods**	**Session R2-02: Multiphase Pipe Flow**	**Session R4-02: Mixing/Separation**
1145-1215	Lead paper CFD08-047: *On the Feasibility of Using the Mesh-free SPH Method for Modelling Thermo-Mechanical Responses in Arc Welding,* R.Das & P.W.Cleary	Lead paper CFD08-010: *CFD-Analysis of Terrain-induced Slug Flow Regimes in Multiphase Pipeline Systems,* A.Ragab, W.Brandstaetter, G.Ruthammer & S.Shalaby	Lead paper CFD08-006: *A Novel Method to include the Free Surface in a CFD Model of Jet Injection into Partially-Baffled Mixing Vessels,* J-P.Torré, P.Higgins, C.Xuereb & D.F.Fletcher
1215-1235	CFD08-048: *Modelling Brittle Fracture and Fragmentation of a Column During Projectile Impact Using a Mesh-Free Method,* R.Das & Cleary	CFD08-104: *Modelling of Breakup and Coalescence in Vertical Bubbly Two-Phase Flows,* S.Lo & D.Zhang	CFD08-087: *CFD Analysis for Performance Improvement of Electrostatic Precipitators in the Cement Industry,* S.Srivastava, V.Vitankar, J.V.Joshi, M.C.Agarawal & B.Basu
1235-1255	CFD08-079: *A meshfree CFD-Population Balance Equation coupled Model,* S.Tiwari, *et.al.*	CFD08-122: *Liquid-Liquid Flow in Horizontal Pipe* C.Conan, A.Pouplin, O.Masbernat, S.Decarre & A.Line	CFD08-078: *A Computational Study of the Coalescence Process Between a Drop and an Interface in an Electric Field,* K.E.Teigen, S.T.Munkejord & E.Bjørklund
1255-1315	CFD08-103: *Simulation of Mud Loss Using Coupled CFD and DEM,* P.Skjetne, H.Laux & A.Lavrov	CFD08-037: *Computational Study of Stratified Gas/Liquid Flow in Horizontal and Inclined Pipes,* W.A.S.Kumara, B.M.Halvorsen & M.C.Melaaen	CFD08-027: *Study and Optimization of Spacer Filament Geometry for Spiral Wound Membrane,* K.K.Lau, , M.Z.Abu Bakar, A.L. Ahmad & S.H.Chang
1315-1415	Lunch		
1415-1510	**Keynote: Cristoph Beckermann,** University of Iowa *Multiscale modeling of solidification processes*		
1515-1645	**Session R1-03: Solidification**	**Session R2-03: Fluidized Bed**	**Session R4-03: Oil/Gas + Flashing Flows**
1515-1545	Lead paper CFD08-024: *Influence of Forced Convection to the Directional Solidification of AlSi Alloys – Comparison of Experiment and Simulation,* J.Dagner, J.Friedrich & G.Müller	Lead paper CFD08-053: *Role of Flow Structure on Ozone Decomposition in Gas-solid Fluidized Beds – A Multiscale Mass Transfer Model,* W.Dong, W.Wang & J.Li	Lead paper CFD08-036: *A Model of Convection of Non-Newtonian Slurry in a Vertical Fracture,* D.Eskin
1545-1605	CFD08-058: *Modelling of Convective Phenomena in Crystal Growth of Silicon for Photovoltaic Applications,* J.Dagner T.Jung, A.Yeckel & J.Friedrich	CFD08-019: *Application of CFD Modelling to Investigate Fluidized Limestone Reactors for the Remediation of Acidic Drainage Waters,* R.Vuthaluru, M.Tade, H.Vuthaluru, Y.Tsvetnenko, L.Evans & J.Milne	CFD08-059: *Analytical Treatment of Single-Well Push-Pull "Echo" Tests,* S.G.Johnsen & C.H.Whitson
1605-1625	CFD08-125: *Modelling of MC-Silicon Ingot Casting,* E.A.Meese	CFD08-056: *Evaluation of Eulerian-Eulerian CFD Models for Predicting the Hydrodynamics of Circulation Fluidized Bed,* A.Almuttahar & F.Taghipour	CFD08-086: *Flash Vessel Process Design,* L.Gunnewiek & U.Shah
1625-1645	CFD08-017: *Prediction of Feeding, Freezing and Defect Creation in Low Pressure Die Casting,* P.W. Cleary	CFD08-097: *CFD Study of a Rotating Chimney for Rotating Fluidized Beds,* J.De Wilde	CFD08-035: *Three-Dimensional Modelling of Industrial Flashing Flows,* C.Marsh & A.O'Mahony
1645-1715	Coffee		

WEDNESDAY JUNE 11

Time	AUDITORIUM R1	AUDITORIUM R2	AUDITORIUM R4
0830-0925	**Keynote: Sergio Vásquez,** ANSYS UK *Numerical methods for predicting Eulerian multiphase flows*		
0930-1100	**Session R1-05: Multiphase Pipe Flow**	**Session R2-05: Bubble & Droplet Dynamics**	**Session R4-05: Particle Tracking**
0930-1000	Lead paper CFD08-123: *Multi-Dimensional Simulations of Stratified to Dispersed Flow Transitions in Gas-Oil Two-Phase Flow in Pipelines,* H.Laux, S.T.Johansen, K.M.Bansal T.J.Danielson, A.Goldszal & J.I.Monsen	Lead paper CFD08-098: *VOF-Based Simulation of Reactive Mass Transfer Across Deformable Interfaces,* D.Bothe, M.Kröger, A.Alke & H.J.Warnecke	Lead paper CFD08-050: *Numerical Study and Experimental Validation of Particle Strand Formation,* D.Kahrimanovic, S.Pirker & C.Kloss
1000-1020	CFD08-012: *Numerical Prediction of Horizontal Stratified Flows,* T.Höhne & C.Vallée	CFD08-113: *Movement of Bubbles Under a Solid Surface,* A.Perron, L.Kiss, S.Poncsák & P.Chartrand	CFD08-051: *Implementation and Experimental Validation of a Stochastical Interparticle Collision Model,* C.Kloss & S.Pirker
1020-1040	CFD08-013: *Large-scale 3D Simulation of Stratified Gas-Liquid Flow Transition and Slug Formation in Oil Transport Pipes,* D.Lakehal & D.Caviezel	CFD08-070: *Numerical Derivation of the Drag Force Coefficient in Bubble Swarms Using a Front Tracking Model,* W.Dijkhuizen, I.Roghair, M.van Sint Annaland & J.A.M.Kuipers	CFD08-043: *Influence of Particle Agglomeration and Agglomerate Porosity on the Simulation of Gas Cyclones,* J.Lipowsky & Sommerfeld
1040-1100	CFD08-054: *Pneumatic Transport of Solid Particles: Simulation and Validation in a Circular Pipe,* D.Suzzi, T.Hoermann & Andreas Reisinger	CFD08-091: *Numerical Investigation on the Rise Behaviour of Single Gaseous Bubbles in Quiescent Liquids,* H.Weking & B.Weigand	CFD08-092: *Dynamics of Sheared Suspensions: Simulation of Hydrodynamic Interactions and Collisions,* E.Climent, M.Abbas, O.Simonin & M.Maxey
1100-1130	**Coffee Break**		
1130-1300	**Session R1-06: Furnace Modelling**	**Session R2-06: Population Balance**	**Session R4-06: Lattice Boltzmann**
1130-1200	Lead paper CFD08-022: *CFD Modelling of Molten Matte and Slag flows in a Circular 3-phase Smelting Furnace,* J.J.Bezuidenhout, J.J.Eksteen & S.M.Bradshaw	Lead paper CFD08-020: *Modelling of Bubble Column with Bubble Number Density Equation Using Least-Squares Method,* Z.Zhu, C.A.Dorao & H.A.Jakobsen	Lead paper CFD08-105: *Determination of Aerodynamic Coefficients of Agglomerates Using the Lattice-Boltzmann Method,* M.Dietzel & M.Sommerfeld
1200-1220	CFD08-084: *A Coupled Numerical Study of Slab Temperature and Gas Temperature in the Walking-Beam Type Slab Reheating Furnace,* Hsieh, M.-J.Huang, S.-T.Lee & C.-H.Wang	CFD08-076: *Dynamic Modelling of Liquid Extraction Columns Using the Direct Primary and Secondary Particle Method,* M.Attarakih, D.Zeidan, C.Drumm, H.Allaboun, S.Tiwari, H.-J.Bart , J.Kuhnert	CFD08-066: *Towards the Construction of Lattice Boltzmann Models for Two Phase Flow Simulation at High Pressures,* P.M.Dupuy, L.E.Patruno, M.Fernandino, H.A.Jakobsen & H.F.Svendsen
1220-1240	CFD08-099: *Using Computational Fluid Dynamics to Optimize a Waste Heat Boiler Design,* S.Thakre, T.Kumaresan, B.Basu, M.Patel, T.Mukhopadhyay, R.Chugh, K.Khandelwal & Y.Mathur	CFD08-041: *Comparison of Supersonic Droplet Mixing and Evaporation Simulation Between the Full Multiphase, Musig and H-Musig Models,* M.Darwish & F.Moukalled	CFD08-089: *Fluid-Particle Interaction Force for Polydisperse Systems from Lattice Boltzmann Simulations,* S.Sarkar, M.A.van der Hoef & J.A.M.Kuipers
1240-1300	CFD08-031: *CFD Based Approach to Control Ash Related Problems in a Large Scale Tangentially Fired Boiler,* H.Vuthaluru, R.Vuthaluru, H.Yurismono & M.Parinussa	CFD08-074: *Population Balance Modelling Applied to the Study of Droplet Behaviour,* L.E.Patruno, C.A.Dorao, H.A.Jakobsen & H.F.Svendsen	CFD08-068: *Effects of Heterogeneity on the Drag Force in Random Arrays of Spheres,* S.H.L.Kriebitzsch, M.A.van der Hoef, J.A.M.Kuipers
1300-1400	**Lunch**		
1400-1455	**Keynote: Horst-Michael Prasser,** ETH Zürich *Tomographic methods for measurements and visualization of complex flowing systems*		
1500-1610	**Session R1-07: Validation/Measurements**	**Session R2-07: Oil/Gas Applications**	**Session R4-07: Industrial Applications**
1500-1530	Lead paper CFD08-032: *UDV Measurements and CFD Simulation of two-phase Flow in a Stirred Vessel,* S.Haavisto, J.Syrjänen, A.Koponen & M.Manninen	Lead paper CFD08-018: *Extreme Wave Interaction With a Floating Oil Rig,* P.Cleary & M.Rudman	Lead Paper: CFD08-033: *CFD Simulation of a Honeycomb Monolith Photoreactor,* S.H.Chong, V.Pareek, S.Wang, M.O.Tade & H.M.Ang
1530-1550	CFD08-102: *Accuracy of Bubble velocity Measurement with a Four-Point Optical Fibre Probe,* W.Bai, N.G.Deen, Robert F.Mudde & J.A.M.Kuipers	CFD08-128: *Simulation of Lifeboat Launching under Storm Conditions,* H.J.Mørch, S.Enger, M.Peric & E.Schreck	CFD08-064: *A Particle Tracking Technique to Estimate Disinfection Efficacy in Drinking Water Treatment Plants,* B.A.Wols, J.A.M.H.Hofman, W.S.J.Uijttewaal, L.C.Rietveld, G.S.Stelling & J.C.vanDijk
1550-1610	CFD08-073: *Experimental Study on Solids Circulation Patterns and Bubble Behavior Using Particle Image Velocimetry Combined with Digital Image Analysis,* J.A.Laverman, et.al.	CFD08-062: *Computational Modelling of Internal Waves in Gas-Oil-Water Separators with Verification Against Experimental Data,* A.R. Kristoffersen, K.Sveen, I.Fosse & D.Wood	CFD08-046: *Application of CFD for Efficient Hydrodynamic Design of Pump-Mix Mixer Settlers,* K.K.Singh, S.M.Mahajani, K.T.Shenoy & S.K.Ghosh
1610-1640	**Coffee Break**		
1730	**Bus departure for Dinner (Downtown departure at 1745)**		
1800-2300	**CONFERENCE DINNER at Ringve Museum (http://www.ringve.no/English/)**		

THURSDAY JUNE 12

Time	AUDITORIUM R1	AUDITORIUM R2	AUDITORIUM R4
0830-0925	**Keynote: Dieter Bothe,** RWTH Aachen *Bubble dynamics and transfer processes in pure and contaminated system*		
0930-1100	**Session R1-08: Bubble & Droplet Dynamics**	**Session R2-08: Fluidized Bed**	**Session R4-08: Metallurgical Applications**
0930-1000	Lead paper CFD08-069: *Direct Numerical Simulation of the Lift Force in Bubbly Flows,* W.Dijkhuizen, M.van Sint Annaland & J.A.M.Kuipers	Lead paper CFD08-038: *A Discrete Element Study of Moisture Dependent Particle-Particle Interaction During Granulation in a Spout Fluidized Bed*, M.S. van Buijtenen, *et.al.*	Lead paper CFD08-009: *CFD Modelling of a Reactive Gas Stirred Three Phase Silicon Reactor,* J.E.Olsen, D.Darmana, A.Ashrafian & K.Tang
1000-1020	CFD08-072:*Simulation of Free-Rising Bubble with Soluble Surfactant Using Moving Mesh Finite Volume/ Area Method,* Ž..Tuković & H.Jasak	CFD08-045: *Experimental and Numerical Investigation Into Gas Vortex Structures Above A Gas-Solid Fluidised Bed After Successive Single Bubble Eruptions,* S.Vun, J.Naser, P.Witt & W.Yang	CFD08-114: *A Reactor Model for Ladle Refining of Silicon Metal,* A.Ashrafian, S.T.Johansen, S.Gaal & B.Andresen
1020-1040	CFD08-071:*Front Tracking Simulations on Liquid-Liquid Systems; an Investigation of the Drag Force on Droplets,* I.Roghair, W.Dijkhuizen, M.Van Sint Annaland & J.A.M.Kuipers	CFD08-081: *Numerical Study of Bubbling Fluidized Bed Using a Kinetic Theory for Granular Materials Including Normal Stress Effects,* D.Dimitrova & A.Sadiki	CFD08-100: *Design Optimization of the De-duster to Reduce Alumina Carry Over Load on the Dry Scrubbing System,* T.Kumaresan, S.Thakre, B.Basu, B.Jain, K.Pandey, R.Singh & R.Somani
1040-1100	CFD08-077: *The Influence of Viscosity and Surface Tension on Droplets Impinging on an Oblique Wall,* J.Urban, B.Weigand, M.Eyselein & R.Tatschl	CFD08-057: *CFD Simulations of Heat Transfer in Rotating Fluidized Beds in a Static Geometry,* J.De Wilde	CFD08-119: *CFD Modelling of Aluminum Mixing in a HDGL Zinc Pot,* E.van Vliet, T.Lucas, T.Peeters, M.Huisert & R.Mallens
1100-1130	**Coffee Break**		
1130-1300	**Session R1-09: Meshfree Methods**	**Session R2-09: Bubble Columns**	**Session R4-09: Heat & Mass Transfer**
1130-1200	Lead paper CFD08-127: *Particle-Fluid Multiphase Flow Modelling Using Computational Fluid Dynamics (CFD) and Discrete Element Modelling (DEM),* W.S.Wong, S.Cole & J.Favier	Lead paper CFD08-063: *Development and Initial Application of a Combined Volume of Fluid and Discrete Phase Modelling Approach to Gas Stirred Vessels,* S.W.P.Cloete, J.J.Eksteen & S.M.Bradshaw	Lead paper CFD08-026: *A Vof-based 3D Numerical Investigation of Evaporating, Deformed Droplets,* J.Schlottke, E.Dülger & B.Weigand
1200-1220	CFD08-016: *Ball Motion in a Full Scale Two Chamber Cement Mill,* P.W.Cleary	CFD08-039: *CFD-Modelling of the Bubble Size in a Bubble Column Using the One-group Interfacial Area Concentration Equation,* R.Hansen, T.Solberg & B.H.Hjertager	CFD08-014: *CFD-based Adsorption Modelling:From Pilot to Industrial Scale,* F.Augier, C.Laroche & E.Brehon
1220-1240	CFD08-093: *Finite Pointset Method (FPM): New Meshfree Flow Solver with Applications to Industry,* J.Kuhnert	CFD08-082: *Design of Bubble Column Reactor by Population Balance Approach,* A.S.Kumar, V.Vitankar & B.Basu	CFD08-067: *CFD Model for Particulate Fouling – Modelling Particle Adhesion on Surface with XDLVO Theory,* U.Ojaniemi, T.Pättikangas, M.Riihimäki & M.Manninen
1240-1300	CFD08-030: *Dissipative Particle Dynamics Beyond Polymer Science,* J.C.Arce & H-J.Bart	CFD08-083: *Computational Fluid Dynamics of Gas-liquid Flows in Bubble-columns Including Bubble Population Balances* S.Bove, T.Solberg & B.H.Hjertager	CFD08-121: *Flow and Heat Transfer in Pipe Caused by Localized Cold Spot,* U.Mme, S.T.Johansen, S.Sarkar, R.Moe, A.Goldszal, H.Holm & Y.Ladam
1300-1400	**Lunch**		
1400-1445	**Keynote: Paul Meakin,** Idaho National Laboratory *Dissipative particle dynamics and related methods for multiphase fluid flow in fractured and porous media*		
1445-1500	**Awards / Closing**		
1500-1530	**Coffee**		
1510-1700	**Optional Technical Visits (Excursions)**		