

PROGRAM FOR CFD2017

Monday May 29th

1800-1930 Conference reception (drinks and snacks) at Scandic Nidelven (conference hotel)

Tuesday May 30th

	Auditorium 1	Auditorium 2	Auditorium 3
0730-0815	Registration		
0815-0830	Opening		
0830-0930	Keynote: Jørn Kristiansen <i>Under the hood of Yr</i>		
0930-1100	Pragmatic Modelling Chair: Jørn Kristiansen	Population balance Chair: Jannike Solsvik	Non-newtonian flows Chair: Paal Skjetne
0930-1000	109: <i>On pragmatism in industrial modelling. Part III: Application to operational drilling</i> , Johansen, Meese , Zoric, Islam, Martins	10: <i>CFD simulation of the droplet size distribution of liquid-liquid emulsions in stirred tank reactors</i> , Farzad & Schneiderbauer	90: <i>Front-tracking simulations of bubbles rising in non-newtonian fluids</i> , Battistella, van Schijndel, Baltussen, Roghair & van Sint Annaland
1000-1020	72: <i>CFD modeling of dynamic emulsion stability</i> , Patil, Johansen	9: <i>A multifluid-PBE model for a slurry bubble column with bubble size dependent velocity, weight fractions and temperature</i> , Vik, Solsvik, Engh, Hillestad & Jakobsen	21: <i>Viscoelastic flow simulations in disordered porous media</i> , De, Kuipers, Peters & Padding
1020-1040	127: <i>Modelling of interaction between turbines and terrain wakes using pragmatic approach</i> , Røkenes, Panjwani, Lund, Samseth	3: <i>Combined multifluid-population balance method for polydisperse multiphase flows</i> , Vikhansky	69: <i>Tire rubber extrudate swell simulation and verification with experiments</i> , Buist, van Dijk & Mateboer
1040-1100	8: <i>Recurrence CFD (rCFD) – Why don't run scale resolved simulations in realtime?</i> Pirkner , Lichtenegger	12: <i>Towards a CFD model for boiling flows: validation of QMOM predictions with TOPFLOW experiments</i> , Buffo, Vanni, Marchisio, Montoya, Baglietto	102: <i>A 2D sediment bed morphodynamics model for turbulent, non-Newtonian, particle-loaded flows;</i> Busch,Khatibi,Johansen & Time
1100-1130	Break		
1130-1300	Breakup & Coalescence Chair: Ivo Roghair	Industrial applications Chair: Yuqing Feng	Euler-Lagrange Chair: Stefan Pirkner
1130-1200	6: <i>Experimental and numerical study on single droplet breakage in turbulent flow</i> , Shi, Herø, Solsvik & Jakobsen	122: <i>Experimental and CFD investigation of fractal distributor on a novel plate and frame ion-exchanger</i> , He, Kochergin, Li & Nandakumar	13: <i>Implementing the Kinetic Theory of Granular Flows into the Lagrangian Dense Discrete Phase Model</i> , S.Cloete & Amini
1200-1220	78: <i>Controlled coalescence with local front reconstruction method</i> , Rajkotwala et.al.	41: <i>Use of CFD as a design tool for a phosphoric acid plant cooling pond</i> , Davailles & Devynck	80: <i>Importance of the different fluid forces on particle dispersion in fluid phase resonance mixers</i> , Schmalfuß & Sommerfeld
1220-1240	39: <i>Improved collision modelling for liquid metal droplets in a slag cleaning process;</i> Yang,Wolters,Pischke,Soltner,Eckert & Fröhlich	113: <i>Urban Wind at the Gløshaugen Campus</i> , Almeida, Simonsen & Sætran	91: <i>Large scale modelling of bubble formation and growth in a supersaturated liquid</i> , Battistella, Aelen, Roghair & van Sint Annaland
1240-1300	77: <i>Modelling of bubble dynamics in slag during its hot stage engineering</i> , Wang, Cao, Blanpain, Vanierschot & Guo	141: <i>Numerical simulation on a high head Francis turbine</i> , Tengs, Storli & Holst	145: <i>The dependence of the drag and lift of non-spherical particles</i> , Sanjevi & Padding
1300-1400	Lunch	Lunch	Lunch
1400-1500	Keynote: Omar K. Matar / Damir Juric <i>Multi scale approaches to solving flow challenges in the oil & gas industries</i>		
1500-1630	Oil & Gas Chair: Dmitry Eskin	DEM Chair: Alice Hager	CFD codes Chair: Thomas Höhne
1500-1530	75: <i>Direct numerical simulation of proppant transport in a narrow channel for hydraulic fracturing application</i> , Maitri et.al.	85: <i>Adaptive coarse-graining for large-scale DEM simulations</i> , Queteschiner, Lichtenegger, Schneiderbauer & Pirkner	139: <i>Multiphase modelling by ANSYS and recently implemented features;</i> A.Kvarnström
1530-1550	106: <i>CFD erosion modelling of blind tees</i> , Sanchis, Skorgen	79: <i>A numerical approach to model aggregate restructuring in shear flow using DEM in Lattice-Boltzmann simulations</i> , Saxena, Kroll-Rabotin & Sanders	136: <i>SOFT: a framework for semantic interoperability of scientific software;</i> Hagellen, Chesnokov, Johansen, Meese & Løvfall
1550-1610	42: <i>Estimation of flow rates and parameters in two-phase stratified and slug flow by an ensemble Kalman filter</i> , Ferrari, Bonzanini, Arioli, Poesio	96: <i>Three-dimensional numerical simulation of a lab-scale pressurized fluidized bed using a LES-DEM approach</i> , Nigmatova, Dufresne, Masi, Moureu, Fede & Simonin	40: <i>Innovative computing for industrially-relevant multiphase flows</i> , Juric, Chergui, Shin, Kahouadji, Craster & Matar
1610-1630	101: <i>Multiphase Direct Numerical Simulations (DNS) of oil-water flows through homogeneous porous rocks</i> , Patel, Kuipers, Peters	130: <i>On an efficient hybrid soft and hard sphere collision integration scheme for DEM</i> , Buist, Seelen, Deen, Padding & Kuipers	61: <i>Development of gpu parallel multiphase flow solver for turbulent slurry flows in cyclone</i> , Mayank, Banerjee & Narasimha
1630-1700	Break	Break	Break
1700-1830	Fluidized bed 1 Chair: Pascal Fede	Combustion Chair: Phil Schwarz	Immersed Boundary Chair: Bernhard Müller
1700-1730	47: <i>Mass transfer phenomena in fluidized beds with horizontally immersed membranes</i> , Voncken, Roghair & van Sint Annaland	100: <i>Modelling combustion of pulverized coal and alternative carbon materials in the blast furnace raceway</i> , Ølund	58: <i>Direct Numerical Simulation of Coupled Heat and Mass Transfer in Fluid-Solid Systems</i> , Lu, Peters & Kuipers
1730-1750	2: <i>CLC process in a double looping fluidized bed reactor with NI-based oxygen carriers</i> , Zhang, Chao & Jakobsen	119: <i>Combustion chamber scaling for energy recovery from furnace process gas: waste to value</i> , Panjwani, Wittgens & Olsen	38: <i>Immersed boundary method for the compressible Navier–Stokes equations using high order summation-by-parts difference operators</i> , Khalili, M. E Larsson, M Müller, B
1750-1810	24: <i>Extremely fast simulations of heat transfer in fluidized beds</i> , Lichtenegger & Pirkner	30: <i>CFD modeling of a commercial-size circle-draft biomass gasifier</i> , Liu, Cattolica, Seiser, Liao & Summers	110: <i>A simulation concept for generic simulation of multi-material flow, using staggered Cartesian grids</i> , Meese & Johansen
1810-1830	137: <i>The peculiar behaviour of elongated particles in fluidized beds: experiments versus simulations</i> , Mahajan, Nijssen, Kuipers & Padding	70: <i>Numerical study of coal particle gasification up to Reynolds numbers of 1000</i> , Kriebitzsch & Richter	112: <i>A cartesian cut-cell method, based on formal volume averaging of mass, momentum equations</i> , Dang, Johansen & Meese

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Wednesday May 31st

	Auditorium 1	Auditorium 2	Auditorium 3
0815-0830	Registration		
0830-0930	Keynote: Pascal Gardin <i>CFD as a tool to understand and optimize metallurgical processes</i>		
0930-1100	Metallurgy 1 Chair: Pascal Gardin	Packed bed Chair: John Morud	Species & Interfaces Chair: Stein Tore Johansen
0930-1000	37: <i>Experimental modelling of metallurgical processes</i> , Gerbeth & Eckert	56: <i>Numerical investigation of particle types influence on packed bed adsorber behaviour</i> , Haddadi, Jordan, Norouzi & Harasek	104: <i>Multiscale approach to fully resolved boundary layers using adaptive grids</i> , Panda, Peters, Baltussen & Kuipers
1000-1020	31: <i>Prediction of wall stresses in a steel making ladle during argon gas purging</i> , Mantripragada & Sarkar	57: <i>CFD based study of dense medium drum separation processes</i> , Eggers, Dewulf, Baelmans & Vanierschot	27: <i>Modelling and numerical simulation of surface active species transport - reaction in welding processes</i> , Dorogan
1020-1040	54: <i>State of the art: macroscopic modelling approaches for the description of multiphysics phenomena within the electroslog remelting process</i> , Schubert,Rückert & Pfeifer	50: <i>Comparison of particle-resolved direct numerical simulation and 1D modelling of catalytic reactions in a packed bed</i> , Singhal, S.Cloete, Radl, Quinta-Ferreira & Amini	83: <i>Implementation, demonstration and validation of a user-defined wall function for direct precipitation fouling in Ansys Fluent</i> , Johnsen, Pääkkönen, Johansen, Keiski & Wittgens
1040-1100	66: <i>LES-VOF simulation of turbulent interfacial flow in the continuous casting mold</i> , Saeedipour, Puttinger & Pirker	67: <i>A multi-domain 1D particle-reactor model for packed bed reactor applications</i> , Tabib, S.Cloete, Morud, Lysberg & Amini	138: <i>Adsorption-desorption modeling for a chemical reaction using Stochastic Rotation Dynamics</i> , Sengar, Padding, Kuipers, Santen
1100-1130	Break	Break	Break
1130-1300	Biomechanics & Industrial applications Chair: Sigrid Kaarstad Dahl	Metallurgy 2 Chair: Eirik Manger	Fluidized bed 2 Chair: Shahriar Amini
1130-1200	64: <i>Oscillatory flow and mass transport in a coronary artery</i> , Gabriel, Ding, Gear & Feng	93: <i>Numerical predictions of the shape and size of the raceway zone in a blast furnace</i> , Safronov, Richter & Meyer	123: <i>Development of filtered particulate Eulerian modeling approach for the industrial prediction of bi-disperse gas-solid fluidized bed</i> , Chevrier, Fede, Masi & Simonin
1200-1220	55: <i>Patient specific numerical simulation of flow in the upper airways for assessing the effect of nasal surgery</i> , Jordal, Johnsen, Dahl & Müller	17: <i>CFD-DEM modelling of blast furnace tapping</i> , Vångö & Lichtenegger	25: <i>Effect of lift force on dense gas-fluidized beds of non-spherical particles</i> , Mema, Mahajan, Fitzgerald, Kuipers & Padding
1220-1240	36: <i>Shape factors inclusion in a one-dimensional, transient two-fluid model for stratified and slug flow simulations in pipes</i> , Bonzanini, Picchi, Ferrari & Poesio	52: <i>Multiphase flow modelling of furnace tapholes</i> , Reynolds & Erwee	49: <i>Experimental and numerical investigation of a bubbling dense gas-solid fluidized bed</i> , Yang, Padding & Kuipers
1240-1300	86: <i>Numerical evaluation of co-firing solid recovered fuel with petroleum coke in a cement rotary kiln: Influence of fuel moisture</i> , Isaac, Pedersen, Grévain, Jensen & Nielsen	53: <i>Solidification modeling with user defined function in ANSYS Fluent</i> , Eickhoff, Rückert & Pfeifer	95: <i>Direct numerical simulation of the effective drag in gas-liquid-solid systems</i> , Baltussen, Kuipers & Deen
1300-1400	Lunch	Lunch	Lunch
1400-1500	Keynote: Rajat Mittal <i>Multiphysics Computational Models of Cardiac Hemodynamics: from Fundamental Questions to Clinical Applications</i>		
1500-1630	Biomechanics Chair: Rajat Mittal	Metallurgy 3 Chair: Sabita Sarkar	Fluidized bed 3 Chair: Hugo Jakobsen
1500-1530	73: <i>Investigating the numerical parameter space for a stenosed patient-specific internal carotid artery model</i> , Mancini, Bergersen, Segers & Valen-Sendstad	11: <i>Modelling of chemical reactions in metallurgical processes</i> , Kinaci, Lichtenegger & Schneiderbauer	92: <i>Verification of filtered two fluid models for reactive gas-solid flows</i> , J.H.Cloete, S. Cloete, Radl & Amini
1530-1550	32: <i>A computational framework involving CFD and data analytics for analyzing cartoid-artery bifurcation disease</i> , Tabib, Fonn & Rasheed	14: <i>Using CFD analysis to optimise top submerged lance geometries</i> , Gwynn-Jones et.al .	44: <i>High temperature fluidization - influence of inter-particle forces on fluidization behavior</i> , Mihajlovic, Roghair & van Sint Annaland
1550-1610	125: <i>Velocity profiles in a 2D model of the left ventricular outflow tract, pathological case study using PIV and CFD modeling</i> , Leinan , Skjetne , Morud, Urheim & Dahl	20: <i>Numerical analysis of the temperature distribution in a martensic stainless steel strip during hardening</i> , Pirouznia, Andersson, Tilliander & Jönsson	34: <i>A Lagrangian-Eulerian hybrid model for the simulation of direct reduction of iron ore in fluidized beds</i> , Schneiderbauer, Kinaci, Hauzenberger & Pirker
1610-1630	68: <i>CFD simulations of turbulent flow in the human upper airways</i> , Aasgrav, Johnsen, Simonsen & Müller	124: <i>Validation of a rapid slag viscosity measurement by CFD</i> , Vandensande, Nagels & Arnout	48: <i>A Two-Fluid Model study of hydrogen production via Water Gas Shift in fluidized bed membrane reactors</i> , Voncken, Roghair & van Sint Annaland
1630-1700	Coffee/Snacks	Coffee/Snacks	Coffee/Snacks

1900-2230 CONFERENCE DINNER AT CONFERENCE HOTEL

PROGRAM FOR CFD2017

Thursday June 1st

	Auditorium 1	Auditorium 2	Auditorium 3
0830-0930	Keynote: Niels Deen <i>Modelling and intensifying bubble columns across the scales</i>		
0930-1100	Bubbly flows Chair: Niels Deen	Fundamental fluid dynamics Chair: Ernst Meese	Metallurgy 4: Chair: Gunter Gerbeth
0930-1000	131: <i>Bubble generated turbulence in two fluid simulation of bubbly flow</i> , Schwarz, Feng & Witt	108: <i>A DNS study of droplet spreading and penetration on a porous medium</i> , Das, Milacic, Patel, Deen & Kuipers	129: <i>Modelling and measurements in the aluminium Industry - Where are the obstacles?</i> Manger
1000-1020	35: <i>Modelling of fluid dynamics, mass transfer and chemical reaction in bubbly flows</i> , Rzehak & Krauß	22: <i>Flow past a yawed cylinder of finite length using a fictitious domain method</i> , Pierson, Hammouti & Auguste	51: <i>Granular flow described by fictitious fluids: a suitable methodology for process simulations</i> , Sparta & Halvorsen
1020-1040	45: <i>Stochastic DSMC model for large scale dense bubbly flows</i> , Kamath, Padding, Buist & Kuipers	114: <i>From linear to nonlinear: Transient growth in confined magnetohydrodynamic flows</i> , Cassells, Vo, Pothérat & Sheard	118: <i>Cleaning of Polycyclic Aromatic Hydrocarbons (PAH) obtained from Ferroalloys plant</i> , Panjwani et.al.
1040-1100	116: <i>On the surfacing mechanism of bubble plumes from subsea gas release</i> , Olsen & Skjetne	64: <i>A numerical evaluation of the effect of the elctro-magnetic force on bubble flow in aluminium smelting process</i> , Feng, Witt, Zhao,	115: <i>A multiscale numerical approach of the dripping slag in the coke bed zone of a pilot scale Si-Mn furnace</i> , Letout, Ratvik, Tangstad
1100-1130	Break	Break	Break
1130-1300	Free surface flow Chair: Mark Sussman	Population balance 2 Chair: Daniele Marchisio	Heat transfer Chair: Maïke Baltussen
1130-1200	46: <i>Influence of the Upstream Cylinder and Wave Breaking Point on the Breaking Wave Forces on the Downstream Cylinder</i> , Kamath,A. et.al .	28: <i>Numerical simulations of tubulent liquid-liquid dispersions with quadrature-based moment methods</i> , Buffo, Li, Podgórska, Vanni & Marchisio	7: <i>CFD-simulation of boiling in a heated pipe including flow pattern transitions using a multi-field concept</i> , Höhne, Krepper & Lucas
1200-1220	84: <i>Recent developments for the computation of the neccessary submergence of pump intakes with free surfaces</i> , Bloemeling, F. and Lawall, R.	18: <i>Simulation of dispersion of immiscible fluids in a turbulent couette flow</i> , Vikhansky & Eskin	23: <i>The Pear-Shaped Fate of an Ice Melting Front</i> , Hewett, J.N. and Sellier
1220-1240	126: <i>Parallel multiphase flow software for solving the navier-stokes equations</i> , Al-Rashed, F. S. and Shariff M.M.	26: <i>Simulation of gas-liquid flows in separators - a Lagrangian approach</i> , Morud, J.C. and Dahl, S.K.	107: <i>An Euler-Euler Model for Gas-Liquid Flows in a Coil Wound Heat Exchanger</i> , Acher, Knaup, Braun & Zander
1240-1300	43: <i>Unresolved CFD-DEM in environmental engineering: submarine slope stability and other applications</i> , Hager,A.et.al.	76: <i>CFD modelling to predict mass transfer in pulsed sieve plate extraction columns</i> , Sen, Singh, & Shenoy	103: <i>Flow dynamics studies for flexible operation of continuous casters (flow flex cc)</i> , Forslund, Barestrand, Ramirez Lopez, Jalali, Olofsson, Lindbäck & Roos
1300-1400	Lunch	Lunch	Lunch
1400-1500	Keynote: Mark Sussman <i>A new paradigm for numerically simulating multiscale phenomena using the multimaterial moment of fluid method and block structured adaptive mesh refinement: applications to marine hydrodynamics</i>		
1500-1530	Summary / Coffee & snacks		

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