



Open Source CFD International Conference 2010
4th & 5th November 2010, Eurostars Grand Central Hotel, Munich
Event Programme

Day 1: Thursday 4 th November 2010	
10:00 – 11:00	Registration & Refreshments Exhibition
11:00 – 12:40	Session I
11:00	Welcome by Event Organisers ICON S. Weston Icon Ltd., UK
11:10	INVITED INDUSTRIAL APPLICATIONS KEYNOTE SPEAKER Will the Pringles™ Fly? and other Science & Engineering Questions behind everyday Products. M. Macura Procter & Gamble, USA
11:40	INVITED ACADEMIC KEYNOTE SPEAKER Multi-scale Challenges in Multiphase CFD D. Schmidt University of Massachusetts, USA
12:10	INVITED PROMINENT KEYNOTE SPEAKER The Triumph of Public Innovation B. Perens Open Source Advocate
12:40 – 14:00	Buffet Lunch Break Exhibition
14:00 – 16:00	Session II
14:00	Closing the Gap between Open Source CFD and Industrial Use J. Papper, D. Green et al. ICON Ltd., UK
14:25	OpenFOAM® for the Development of Automotive Exhaust Systems M. Olesen, C. Hinterberger Faurecia Emissions Control Technologies, Germany
14:50	Intel HPC Technologies for ICON FOAMpro Users U. Becker-Lemgau, M. Klemm Intel, Germany
15:15	Further CFD-validation for Automotive Aerodynamics Development T. Schuetz, P. Unterlechner, K. Zens Audi AG, Germany
15:30	Poster Presentations (Exhibition Area)
16:00 – 16:30	Discussion Break & Refreshments Exhibition
16:30 – 18:10	Session III
16:30	Simulation of Water Film Formation and Comparison to Experimental Results M. Rehm, D. Walter, T. Buchner, S. Gross AREVA NP GmbH, Germany
16:55	Combustion Simulations based on Open Source Software F. Tap Dacolt, Netherlands
17:20	CAD-based Optimization Methods with Application to the Automotive Industry E. Cortey*, A. Thinat*, M. Sidorukiewicz**, P. Caletant*** *CFD Numerics, **Renault DREAM, ***BULL, France
17:45	Implicit Solution Techniques for Coupled and Multi-Field Problems H. Rusche*, H. Jasak** *Wikki GmbH, Germany, **Wikki Ltd, UK
19:30 – 23:00	Evening Entertainment
19:30	Pre-dinner drinks
20:00	Evening Dinner
21:30	Post-dinner drinks and entertainment
23:30	Close of Day 1

Event	Location
Conference Session A	Rainbow Conference Suite
Conference Session B	Purple Meeting Room
Poster Presentations	Rainbow Conference Suite
Exhibition	Foyer
Registration	Foyer
Postprocessing Training	Orange Room
FOAMpro Training	Orange Room
Programming Training	Orange Room
Lunch	Restaurant
Pre-dinner drinks	Augustiner-Keller
Evening Dinner	Augustiner-Keller
Evening Entertainment	Augustiner-Keller

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Day 2: Friday 5 th November 2010			
08:30 – 09:00 Refreshments			
09:00 – 10:15	<table border="0"> <tr> <td style="vertical-align: top;"> Session IV-A 09:00 CastNet: GUI based Modeling and Solution Control Environment for OpenFOAM® U. Heck DHCEA Tools UG, Germany 09:25 Object-oriented Redesign of Density-based RANS Solver AeroFoam for Aerodynamic Industrial Applications G. Romanelli*, L. Mangani** *Politecnico di Milano, Italy, **Hochschule Luzern Technik und Architektur, Switzerland 09:50 Vertical Axis Wind Turbine Development and Analysis by OpenFOAM® Simulation and Advanced FieldView Post-Processing D. Ortlieb, R. Thuemmler, F. Semler CFD Consultants GmbH, Germany </td> <td style="vertical-align: top;"> Session IV-B Viscoelastic Flow Instabilities for Laminar Flow in a Cross-Slot A. A. Martins, F. Pinho, M. A. Alves Faculdade de Engenharia da Universidade do Porto, Portugal Mathematical Modelling of Stent Assisted Magnetic Drug Targeting System in a Stretched Vessel using OpenFOAM® A. Mardinoglu*, A. Prina-Mello** *Chalmers University of Technology, Sweden, **Trinity College, Ireland Modelling of Turbulent Melt Flow and Solidification Processes in Steel Continuous Caster with the Open Source Software Package OpenFOAM® A. Vakhrushev*, A. Ludwig*, M. Wu*, Y. Tang**, G. Nitzl**, G. Hackl* *University of Leoben, **RHI AG, Austria </td> </tr> </table>	Session IV-A 09:00 CastNet: GUI based Modeling and Solution Control Environment for OpenFOAM® U. Heck DHCEA Tools UG, Germany 09:25 Object-oriented Redesign of Density-based RANS Solver AeroFoam for Aerodynamic Industrial Applications G. Romanelli*, L. Mangani** *Politecnico di Milano, Italy, **Hochschule Luzern Technik und Architektur, Switzerland 09:50 Vertical Axis Wind Turbine Development and Analysis by OpenFOAM® Simulation and Advanced FieldView Post-Processing D. Ortlieb, R. Thuemmler, F. Semler CFD Consultants GmbH, Germany	Session IV-B Viscoelastic Flow Instabilities for Laminar Flow in a Cross-Slot A. A. Martins, F. Pinho, M. A. Alves Faculdade de Engenharia da Universidade do Porto, Portugal Mathematical Modelling of Stent Assisted Magnetic Drug Targeting System in a Stretched Vessel using OpenFOAM® A. Mardinoglu*, A. Prina-Mello** *Chalmers University of Technology, Sweden, **Trinity College, Ireland Modelling of Turbulent Melt Flow and Solidification Processes in Steel Continuous Caster with the Open Source Software Package OpenFOAM® A. Vakhrushev*, A. Ludwig*, M. Wu*, Y. Tang**, G. Nitzl**, G. Hackl* *University of Leoben, **RHI AG, Austria
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12:00 – 13:15	<table border="0"> <tr> <td style="vertical-align: top;"> Session VI-A 12:00 Improvement and Application of Topology Optimisation Algorithms for Ducted Flows T. Grahs*, N. Peller** *move-csc, **Audi AG, Germany 12:25 Comparison of Experimental Data and Simulation in Combustor with Premixing Delivery Tubes J. Kubata, R. Hybl Aeronautical Research and Test Institute, Czech Republic 12:50 Towards a Modular System for the Simulation of Diesel Exhaust Gas After-treatment Systems with OpenFOAM® M. Klug*, B. Gschaider** *University of Leoben, **ICE Stroemungsforschung GmbH, Austria </td> <td style="vertical-align: top;"> Session VI-B A Global Mesh Regularization Approach M. Hojjat, E. Stavropoulou, K.-U. Bletzinger TU Muenchen, Germany Problem Specific Meshing with Open-Source Technology O. Gloth enGits GmbH, Germany Modelling Shock Wave Phenomena in over-expanded Jets using OpenFOAM® P. L. Garlick Tourbillon Technology Ltd, UK </td> </tr> </table>	Session VI-A 12:00 Improvement and Application of Topology Optimisation Algorithms for Ducted Flows T. Grahs*, N. Peller** *move-csc, **Audi AG, Germany 12:25 Comparison of Experimental Data and Simulation in Combustor with Premixing Delivery Tubes J. Kubata, R. Hybl Aeronautical Research and Test Institute, Czech Republic 12:50 Towards a Modular System for the Simulation of Diesel Exhaust Gas After-treatment Systems with OpenFOAM® M. Klug*, B. Gschaider** *University of Leoben, **ICE Stroemungsforschung GmbH, Austria	Session VI-B A Global Mesh Regularization Approach M. Hojjat, E. Stavropoulou, K.-U. Bletzinger TU Muenchen, Germany Problem Specific Meshing with Open-Source Technology O. Gloth enGits GmbH, Germany Modelling Shock Wave Phenomena in over-expanded Jets using OpenFOAM® P. L. Garlick Tourbillon Technology Ltd, UK
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13:15 – 14:30 Buffet Lunch Break Exhibition			
14:30 – 15:30	Session VII 14:30 Multidimensional Parallel Simulation of Diesel Exhaust Aftertreatment Systems A. Montorfano, G. Montenegro, A. Onorati, F. Piscaglia Politecnico di Milano, Italy 14:55 CFD Simulations at Scale - OpenFOAM® Open Source Applications P. Liu**, G. Shainer*, B. Sparks*, T. Liu**, N. Eicker*** *HPC Advisory Council, USA, **Mellanox Technologies, USA, ***Jülich Supercomputing Centre, Germany 15:20 Closing Remarks and Prize Draw		
15:30 Close of Event			

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15:30 – 16:30		Poster Presentations (Exhibition Area)
1		Mathematical Modelling of Stent Assisted Magnetic Drug Targeting System in a Stretched Vessel using OpenFOAM® Moving Mesh Solver A. Mardinoglu*, A. Prina-Mello** *Waterford Institute of Technology, **Trinity College, Ireland
2		Integration of OpenFOAM® Flow Models and Filament-Based Gas Dispersal Modelling for Evaluation of Statistical Gas Distribution S. Pashami, S. Asadi, A. Lilienthal Örebro University, Sweden
3		CFD supported Plea for a Reconfigurable mono-hull/trimaran Ship Concept J. Mattheijssens, W. Bosschaerts, J.-P. Marcel Royal Military Academy, Belgium
4		CFD Simulation of fast Bottle Cleaning Processes C. Meister*, F. Geiger*, K. Velten*, H. Evers**, F.-J. Methner*** *Hochschule RheinMain, **KHS AG, ***Technische Universität Berlin, Germany
5		Adaptive Mesh Reconnection for Deforming Domain CFD Computations K. Mooney, S. Menon, D. Schmidt University of Massachusetts, USA
6		ISPACE - Study of Individualised Cabin Environment K. Tskouris ICON Ltd., UK

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