From 08:00					
08:30 – 09:10					OPEN
09:10 – 09:50					PLENARY LECTURE: Isogeometric and Variational Multiscale Met
09:50 – 10:30					PLENARY LECTURE: Higher Order Discontinuous Galerkin metho
10:30 – 10:50					
Room	**Room A1**	**Room A2**	**Room A3**	**Room A4**	**Room B5**
	1.1 Numerical Methods for High Speed Flows I	**2.1 Computational Electromagnetics I**	**3.1 MS12 Numerical Modelling of Waves Interacting with Coastal Structures**	**4.1 MS18 Reliable Numerical Methods for Atmosphere and Ocean Models: Part I**	**5.1 Gas-Liquid Interfaces**
			Organizers: E. Didier, M. G. Neves	**Organizers: A. Mahalov, P. Neittaanmaki, S. Repin**	
10:50 – 11:20					
11:00 – 11:20	New Limiter and Gradient Reconstruction Method for HLLC-Finite Volume Scheme to Solve Navier-Stokes Equations AUTHORS: Lakhdar Remaki; Oubay Hassan; Kenneth Morgan SPEAKER: Lakhdar Remaki	A 3D Finite Element Method for the Coupled Numerical Simulation of Electrochemical Systems and Fluid Flow: Ion Transport in Electrodeposition AUTHORS: Georg Bauer; Volker Gravemeier; Wolfgang A. Wall SPEAKER: Georg Bauer	A Lagrangian Smoothed Particle Hydrodynamics – SPH – Method for Modelling Waves-Coastal Structure Interaction AUTHORS: Eric Didier; Maria G. Neves SPEAKER: Eric Didier	Wind Power Energy Activity in Finland ? AUTHORS: Pekka J. Neittaanmäki SPEAKER: Pekka J. Neittaanmäki	An Optimal Approach for Velocity Interpolation in Multilevel VOF Method AUTHORS: Antonio Cervone; Sandro Manservisi; R. Scardovelli SPEAKER: Antonio Cervone
11:20 – 11:40	Spectral Volume Method : Application to Euler Equations and Performance Appraisal AUTHORS: Oussama Chikhaoui; J. Gressier; G. Grondin SPEAKER: Oussama Chikhaoui	Hybridization of Numerical Schemes in Time Domain to Solve the Vlasov-Maxwell Equations AUTHORS: Laura Pebernet; X. Ferrieres; F. Rogier; P. Degond SPEAKER: Laura Pebernet	Comparisons of Wave Overtopping at Coastal Structures Calculated with AMAZON, COBRAS-UC and SPHYSICS AUTHORS: Maria G. Neves; M. T. Reis; Eric Didier SPEAKER: Maria G. Neves	Indeterminant Data in Problems of Continuum Mechanics AUTHORS: Olli J. Mali; Pekka J. Neittaanmäki; Sergey I. Repin SPEAKER: Olli J. Mali	Segment Patching of the Higher Order Interface Reconstruction for the Volume of Fluid Method AUTHORS: Joris C. G. Verschaeve SPEAKER: Joris C. G. Verschaeve
11:40 – 12:00	An Implicit Spectral Finite Volume Method for Unstructured Grid Aerodynamic Simulations AUTHORS: Carlos Breviglieri; João L. F. Azevedo; Edson Basso SPEAKER: João L. F. Azevedo	Coherent Vorticity and Current Extraction in Three-Dimensional Homogeneous Magnetohydrodynamic Turbulence: Comparison Between Wavelet and Fourier Filtering AUTHORS: Naoya Okamoto; K. Yoshimatsu; Y. Kondo; K. Schneider; M. Farge SPEAKER: Naoya Okamoto	Comparison of Three Nonlinear Models to Analyze Wave Propagation over Submerged Trapezoidal Breakwaters AUTHORS: Paulo R. F. Teixeira; Liliana V. Pinheiro; Conceição J. Fortes SPEAKER: Paulo R. F. Teixeira	Stability of the Ekman Boundary Layer AUTHORS: Juergen Saal SPEAKER: Juergen Saal	A PLIC-VOF Implementation on Parallel 3D Unstructured Meshes AUTHORS: Lluis Jofre; Oriol Lehmkuhl; J. Castro; Assensi Oliva SPEAKER: Lluis Jofre
12:00 – 12:20	Entropy Viscosity for Conservation Equations AUTHORS: J. L. Guermond; Richard Pasquetti; B. Popov SPEAKER: Richard Pasquetti	Approximation of the Thermally Coupled MHD Problem using a Stabilized Finite Element Method AUTHORS: Ramon Codina; Noel Hernández-Silva SPEAKER: Ramon Codina	Bottom Friction and Wave Breaking Implementation in the BOUSS3W Nonlinear Wave Propagation Model AUTHORS: Liliana V. Pinheiro; Conceição J. Fortes; Paulo R. F. Teixeira; M. A. Walkley SPEAKER: Liliana V. Pinheiro	Fast Singular Oscillating Limits of Hydrodynamic PDEs: Application to 3D Rotating Navier-Stokes, Boussinesq and MHD Equations AUTHORS: Alex Mahalov SPEAKER: Alex Mahalov	Numerical Treatment of Contact Line Motion Near a Sharp Corner AUTHORS: Poorya A. Ferdowsi; M. Bussmann SPEAKER: Poorya A. Ferdowsi
12:20 – 12:40	Improvements of Simple Low-Dissipation AUSM against Shock Instabilities in Consideration of Interfacial Speed of Sound AUTHORS: Keiichi Kitamura; Eiji Shima SPEAKER: Keiichi Kitamura	High Order Discontinuous Galerkin Solution of 1D Ideal Magnetohydrodynamic Equations AUTHORS: Alessandra Nigro; C. De Bartolo; F. Bassi SPEAKER: Alessandra Nigro	Numerical Modelling of Wave-Structure Interaction with a Three Dimensional Navier-Stokes Model AUTHORS: Javier L. Lara; Inigo J. Losada; Manuel del Jesus; G. Barajas; R. Guanche SPEAKER: Manuel del Jesus	Correction on Cooper and Haines Method with the Relationship Between Sea-Level and Bottom Pressure Variability AUTHORS: João R. P. Nogueira; Aires J. P. dos Santos; M. M. F. Juliano SPEAKER: * * * * *	Modification and Extension of a Standard Volume-Of-Fluid Solver for Simulating Boiling Heat Transfer AUTHORS: Christian Kunkelmann; Peter Stephan SPEAKER: Christian Kunkelmann
12:40 – 13:00			Numerical Analysis of Coastal Structures at Prototype Scale using IH-2VOF AUTHORS: Inigo J. Losada; R. Guanche; Manuel del Jesus; Javier L. Lara; C. Vidal SPEAKER: Javier L. Lara		Simulation of Interfacial Gas-Liquid Annular Flows using an Interfacial Function AUTHORS: Galileu H. Oliveira; Luis M. Portela SPEAKER: Galileu H. Oliveira
13:00 – 14:00					
13:30 – 15:30					POS

day, June 14th

Mon

	1.2 Numerical Methods for High Speed Flows II	2.2 Computational Electromagnetics II	3.2 MS23 Modelling of Contact Line Dynamics	4.2 MS18 Reliable Numerical Methods for Atmosphere and Ocean Models: Part II	5.2 Multiphase Flows I
			Organizers: Bernhard Müller, Gunilla Kreiss	**Organizers: A. Mahalov, P. Neittaanmaki, S. Repin**	
15:00 – 15:30					
15:10 – 15:30	A Symmetrizing Variables Formulation for Hypersonic Thermo-Chemical Non-Equilibrium Flows, with Application to Residual Distribution Schemes AUTHORS: Jesús Garicano Mena; Andrea Lani; Gérard Degrez; Herman Deconinck SPEAKER: Jesús Garicano Mena	A Contribution on the Numerical Simulation of ICP Torchs. AUTHORS: S. Clain; D. Rochette; R. Touzani; Mário L. da Silva; D. Vacher; P. André SPEAKER: Mário L. da Silva	Modelling Drops on Micropatterned Surfaces AUTHORS: B. M. Mognetti; Julia M. Yeomans SPEAKER: Julia M. Yeomans	Guaranteed a Posteriori Error Estimates for Viscous Flow Problems in Rotation Frame AUTHORS: Sergey I. Repin SPEAKER: Sergey I. Repin	Analysis of the Cavitating Flow in Real Size Diesel Injectors with Fixed and Moving Needle Lift Simulations AUTHORS: Xandra Margot; Antonio García; Pablo Fajardo; Stavroula Patouna SPEAKER: Xandra Margot
15:30 – 15:50	Investigation of Slip Boundary Conditions of Hypersonic Flow over Microporous Surfaces AUTHORS: Viola Wartemann; Heinrich Lüdeke SPEAKER: Viola Wartemann	Flow Analysis of the HCLL-TBM(ITER) Channels including MHD and Heat Transfer AUTHORS: Elisabet M. de les Valls; J. Fradera; L. Batet SPEAKER: Elisabet M. de les Valls	Sharp-Interface Simulations of Surfactant-Covered Drops in Electric Fields AUTHORS: Knut E. Teigen; Karl Y. Lervag; Svend T. Munkejord SPEAKER: Knut E. Teigen	New Indicators of Approximation Errors for Problems in Continuum Mechanics AUTHORS: Immanuel B. Anjam; Olli J. Mali; Pekka J. Neittaanmäki; Sergey I. Repin SPEAKER: Immanuel B. Anjam	Multicomponent Droplet Evaporation of Heating Oil using a Continuous Thermodynamics Model AUTHORS: Melanie Grote; K. Lucka; H. Köhne SPEAKER: Melanie Grote
15:50 – 16:10	Discrete Kinetic Finite Volume Schemes for Multidimensional Systems of Conservation Laws on Unstructured Non Cartesian Grid AUTHORS: Denise Aregba-Driollet; Frédéric Krantz SPEAKER: Frédéric Krantz	Numerical Simulations of the Lorentz Force Flowmeter AUTHORS: Axelle Viré; B. Knaepen; A. Thess SPEAKER: Axelle Viré	Simulations of Small Scale Fluid Flows Dominated by Capillarity and Wetting AUTHORS: Gustav Amberg SPEAKER: Gustav Amberg	A Posteriori Error Estimates for Approximate Solutions of Barenblatt-Biot Poroelastic Model AUTHORS: J. M. Nordbotten; T. Rahman; Sergey I. Repin; Jan Valdman SPEAKER: Jan Valdman	CFD Modeling of Two-Phase Flow in Vertical Bubbly Flow Condition: Isothermal and Subcooled Boiling Conditions AUTHORS: F. Pellacani; Silvana Matturro; Sergio Chiva; R. Macian SPEAKER: F. Pellacani
16:10 – 16:30	Numerical Study of the Influence of Dissipative Effects on the Propagation of Detonation Waves in Narrow Shock Tubes AUTHORS: Davy Ngomo; Ashwin Chinnayya; Abdellah Hadjadj SPEAKER: Davy Ngomo	Numerical Simulation of an Electric Charged Compressible Gas-Flow with Adaptive Mesh Refinement AUTHORS: Stephan Reichel; Rodion Groll; H. J. Rath SPEAKER: Stephan Reichel	A Hybrid Level-Set-Cahn-Hilliard Model for Two-Phase Flow AUTHORS: Martin Kronbichler; Gunilla Kreiss SPEAKER: Martin Kronbichler	Computational Studies of Inertia-Gravity Waves Radiated from Upper Tropospheric Jets AUTHORS: Alex Mahalov; Mohamed Moustaoui SPEAKER: Alex Mahalov	
16:30 – 16:50	A Zonal Euler/Viscous Solver for Compressible Flows AUTHORS: Cristian Biotto; J. Peiró SPEAKER: Cristian Biotto	Numerical Simulation of Thermal Convection under the Influence of a Magnetic Field by using Solenoidal Bases AUTHORS: Durmus Yarimpabuc; Hakan I. Tarman SPEAKER: Durmus Yarimpabuc	A Conservative Level Set Method for Sharp Interface Multiphase Flow Simulation AUTHORS: Claudio Walker; Bernhard Müller SPEAKER: Claudio Walker		
16:50 – 17:10	NURBS-Enhanced Finite Volume Method (NEFVM)) AUTHORS: Ruben Sevilla; Oubay Hassan; Kenneth Morgan SPEAKER: Ruben Sevilla	The Simulation of the Motion of Solid Particles in the Turbulent Flow of Induction Crucible Furnaces AUTHORS: Mihails Scepanskis; Andris Jakovics; Bernard Nacke SPEAKER: Mihails Scepanskis			
17:10 – 17:30					BOARDING
18:00 – 20:00					BOAT TRI
20:00					BUS R

REGISTRATION

NING SESSION (Room A1)

hods in Computational Fluid Dynamics. Thomas J. R. Hughes, University of Texas, USA.

ds with emphasis on Aeronautical applications. Francesco Bassi, University of Bergamo.

Coffee Break

Room B6	Room A7	Room C8	Room D9	Room E10	Room F11
6.1 MS17 Combustion	**7.1 MS06 Model Order Reduction in Complex Systems in CFD: Part I**	**8.1 Computational Acoustics I**	**9.1 MS35 Discontinuous Galerkin Methods: Part I**	**10.1 Physiological Flows I**	**11.1 MS30 Modern Programming Techniques for Numerical Analysis Software**
Organizer: Wolfgang Schröder	**Organizers: G. Rozza, B. Haasdonk, M. Ohlberger**		**Organizers: M. Feistauer, V. Dolejsi**		**Organizers: C. Engwer, T. Richter**
Modeling Preferential Diffusion Effects in Premixed Methane-Hydrogen-Air Flames by using Flamelet-Generated Manifolds AUTHORS: Jeroen van Oijen; Rob Bastiaans; Philip de Goey SPEAKER: Jeroen van Oijen	Model Order Reduction by Reduced Basis Methods for Shape Optimization in Computational Fluid Dynamics AUTHORS: Gianluigi Rozza; Andrea Manzoni SPEAKER: Gianluigi Rozza	Sixth-Order Compact Finite Volume Scheme for Aeroacoustics with Complex Geometries AUTHORS: Arnaud F. Pouangué; H. Deniau; N. Lamarque; J-F. Boussuge SPEAKER: Arnaud F. Pouangué	DGFEM for the Numerical Solution of Compressible Flow in Time-Dependent Domains and Applications to Fluid-Structure Interaction AUTHORS: Miloslav Feistauer; Jaromir Horácek; Václav Kucera; Jaroslava Prokopová SPEAKER: Miloslav Feistauer	Vessels' Compliance Estimation Based on a Control Approach applied to Medical Images and FSI Problems AUTHORS: Mauro Perego; Alessandro Veneziani; Christian Vergara SPEAKER: Mauro Perego	Benefits of Generic Software: Convenient Parallelization of Micro-Scale DG-CFD Simulations AUTHORS: Christian Engwer SPEAKER: Christian Engwer
LES Modeling of Kinetics-Controlled Combustion Regimes: Autoignition and Low-Temperature Combustion AUTHORS: Matthias Ihme SPEAKER: Matthias Ihme	A Certified Reduced Basis Method for the Parametrized Unsteady Boussinesq Equations AUTHORS: David J. Knezevic SPEAKER: David J. Knezevic	Boundary Algorithms for High-Accuracy Aeroacoustic Schemes AUTHORS: Ludwig W. Dorodnicyn SPEAKER: Ludwig W. Dorodnicyn	Hamiltonian Discontinuous Galerkin FEM for Linear Incompressible Fluid AUTHORS: Shavarsh Nurijanyan; Onno Bokhove SPEAKER: Shavarsh Nurijanyan	A Data Assimilation Technique for including Noisy Measurements of the Velocity Field into Navier-Stokes Simulations AUTHORS: Marta D'Elia; Alessandro Veneziani SPEAKER: Marta D'Elia	Generic Programming for Flexible, High Performance Numerical Software AUTHORS: Bard Skaflestad; Atgeirr F. Rasmussen SPEAKER: Bard Skaflestad
Recent Advances In Flame Response Prediction for Combustion Instability Modelling AUTHORS: Santosh Hemchandra SPEAKER: Santosh Hemchandra	Reduced-Basis Approximation and a Posteriori Error Estimation for the Parametrized Incompressible Navier-Stokes Equations AUTHORS: Karen Veroy; David J. Knezevic; Anthony T. Patera SPEAKER: Karen Veroy	Efficiency Investigation of a Parallel Hierarchical Grid Based Aeroacoustic Code for Low Mach Numbers and Complex Geometries AUTHORS: Michael Kornhaas; Dörte C. Sternel; Michael Schäfer SPEAKER: Michael Kornhaas	Development of an Unstructured High Order Incompressible Discontinuous Galerkin Finite Element Method AUTHORS: Esteban Ferrer; R. H. J. Willden; G. T. Houlsby SPEAKER: Esteban Ferrer	Deposition of Non-Spherical Particles (Fibres) in a Channel with Subsequent Bifurcations AUTHORS: Matej Forman; Jaroslav Volavy SPEAKER: Matej Forman	H5Fed - a HDF5 Based Finite Element Data Library AUTHORS: Achim Gsell; Benedikt Oswald; Andreas Adelmann; Edward W. Bethel; Mark Howison; Prabhat; John M. Shalf SPEAKER: Achim Gsell
Assessment of the Performance of Several Turbulence and Combustion Models in the Numerical Simulation of Mild Combustion in a Laboratory Combustor AUTHORS: Amândio Rebola; Pedro J. Coelho; Mário Costa SPEAKER: Pedro J. Coelho	A Posteriori Error Bounds for Reduced Basis Approximations of Nonlinear Parabolic Partial Differential Equations AUTHORS: Martin A. Grepl SPEAKER: Martin A. Grepl	Fluid–Structure–Acoustic Interaction, Algorithms and Implementations using the Finite Element Method AUTHORS: Stefan Zörner; M. Kaltenbacher SPEAKER: Stefan Zörner	Discontinuous Galerkin Implementation with hpGEM AUTHORS: Mochamad T. Julianto; Vijaya R. Ambati; Onno Bokhove; J. J. W. van der Vegt; Thomas Weinhart; Anthony R. Thornton SPEAKER: Mochamad T. Julianto	CFD Study of the Volumatic® Spacer: a Realistic Approach AUTHORS: Ricardo F. Oliveira; Senhorinha Teixeira; Luís F. Silva; José Carlos Teixeira; Henedina Antunes SPEAKER: José Carlos Teixeira	Generic Finite Element Programming for Massively Parallel Flow Simulations AUTHORS: Timo Heister; Martin Kronbichler; Wolfgang Bangerth SPEAKER: Timo Heister
	Model Reduction for Reacting Flow Applications AUTHORS: Marcelo Buffoni; V. B. Nguyen; K. Willcox SPEAKER: Marcelo Buffoni	Simulation of Automotive Injector Nozzle Noise with Fully Coupled CFD/CAA Solver AUTHORS: Harald Klimach; Sabine P. Roller; Jens Utzmann; Claus-Dieter Munz SPEAKER: Sabine P. Roller	Space-Time Discontinuous Galerkin Method for Nonlinear Water Waves: Variational vs. Weak Formulation AUTHORS: Vijaya R. Ambati; Onno Bokhove; J. J. W. van der Vegt SPEAKER: Vijaya R. Ambati	Simulation of the Breathing Cycle in the Extrathoracic Region using an Immersed Boundary Approach AUTHORS: Laura Nicolaou; Tamer Zaki SPEAKER: * * * * *	Generic and Efficient Implementation Techniques for High Order Finite Elements AUTHORS: Joachim Schöberl SPEAKER: * * * * *
		Effect of Distance on Aeroacoustic Waves from Double Cavities in Tandem Arrangements AUTHORS: T. Shimizu; Taku Nonomura; Kozo Fujii; M. Yamamoto SPEAKER: Taku Nonomura			

Lunch Break

STER SESSION 1

6.2 Combustion and Reactive Flows I	7.2 MS06 Model Order Reduction in Complex Systems in CFD: Part II	8.2 Computational Acoustics II	9.2 MS35 Discontinuous Galerkin Methods: Part II	10.2 MS14 Bioflows in the Airways	11.2 MS10 Image Processing and Visualization
	Organizers: G. Rozza, B. Haasdonk, M. Ohlberger		**Organizers: M. Feistauer, V. Dolejsi**	**Organizers: C. Lacor, W. Schröder**	**Organizers: J. M. R. S. Tavares, R. M. N. Jorge**
A Computational Framework for Multiscale Modeling in Chemical Vapor Deposition Processes AUTHORS: Nikolaos Cheimarios; George Kokkoris; Andreas G. Boudouvis SPEAKER: Nikolaos Cheimarios	Parametrized Discrete Empirical Interpolation of Nonlinear Implicit Evolution Operators AUTHORS: Martin Drohmann; Bernard Haasdonk; Mario Ohlberger SPEAKER: Martin Drohmann	Numerical Investigation of Flow Features and Acoustic Radiation from Round Cavities AUTHORS: Olivier Marsden; Christophe Bogey; Christophe Bailly SPEAKER: Olivier Marsden	Semi-Implicit Discontinuous Galerkin Finite Element Method for the Steady State Compressible Flows AUTHORS: Vit Dolejsí SPEAKER: Vit Dolejsí	Numerical Study of Particle Deposition in the Human Upper Airways with Emphasis on Hot Spot Formation and Comparison of LES and RANS Models AUTHORS: Vivek Agnihotri; Khairy Elsayed; Chris Lacor; S. Verbanck SPEAKER: Vivek Agnihotri	Numerical and Experimental Images of Multiphase Plasma Jet During Plasma Processing of Dispersed Materials AUTHORS: Viktorja Grigaitiene; R. Keželis; V. Valincius; P. Valatkevicius SPEAKER: Viktorja Grigaitiene
CFD Re-Design of a Gas Turbine Can-Type Combustion Chamber Hydrogen Fired AUTHORS: Alessandro Marini; Alessandro Cappelletti; Giovanni Riccio; Francesco Martelli SPEAKER: Alessandro Cappelletti	A New Hierarchical Model Reduction Technique Based on Reduced Basis Methods and Dimensional Splitting AUTHORS: Mario Ohlberger; Kathrin Smetana SPEAKER: Kathrin Smetana	Computational Analysis of Aeroacoustic Waves Induced by Rotating Tire AUTHORS: Ittetsu Kaneda; Taku Nonomura; Kozo Fujii; Toshiyuki Ikeda; Masataka Koishi SPEAKER: Ittetsu Kaneda	Discontinuous Galerkin Schemes with Reconstruction: the PN PM -approach AUTHORS: M. Dumbser; A. Filimon; Claus-Dieter Munz SPEAKER: Claus-Dieter Munz	Analysis of the Temporal Flow Field in Tracheobronchial Model AUTHORS: Wolfgang Schröder; G. Eitel; T. Soodt; A. Henze SPEAKER: Wolfgang Schröder	Reconstructing Experimental Data from Video Records for Film Flow over a Spinning Disk AUTHORS: Valentina N. Korzhova; Dmitry B. Goldgof; G. M. Sisoev SPEAKER: Dmitry B. Goldgof
Influence of Radiative Heat Transport on the 3D Unsteady Flow in a Diffusion Furnace AUTHORS: Roland Kessler; M. Lambert SPEAKER: Roland Kessler	Model Order Reduction of a Continuous Crystallizer AUTHORS: Mykhaylo Krasnyk; Michael Mangoldy SPEAKER: Mykhaylo Krasnyk	Applicability of RANS Models for Accurate Computation of Flow over Airfoils with Serrated Trailing Edges AUTHORS: Gérson C. Fernandes; Markus Weinmann; Richard D. Sandberg SPEAKER: Gérson C. Fernandes	Time Stepping and Linear Stability of Runge-Kutta Discontinuous Galerkin Methods on Triangular Grids AUTHORS: Thomas Toulorge; Wim Desmet SPEAKER: Thomas Toulorge	High Order Numerical Simulation of Fluid-Structure Interaction in Human Phonation AUTHORS: Martin Larsson; Bernhard Müller SPEAKER: Martin Larsson	Towards Artificial Vision and Pattern Recognition Techniques for Application in Liquid Composite Moulding Processes AUTHORS: Ubaldo Pineda; N. Montés; F. Sánchez SPEAKER: Ubaldo Pineda
Simulation of a Button-Type Solid Oxide Fuel Cell AUTHORS: E. Vakouftsi; G. Marnellos; C. Athanasiou; Frank A. Coutelieris SPEAKER: Frank A. Coutelieris	A 3D CFD Model of a Natural Draft Wet-Cooling Tower AUTHORS: Adam Klimanek; Ryszard A. Bialecki; Ziemowit Ostrowski SPEAKER: * * * * *	Investigation by Acoustic Resonance of Human Body AUTHORS: Gheorghe V. Gavriloaia; Mariuca-Roxana G. Gavriloaia SPEAKER: Gheorghe V. Gavriloaia	Characteristic Boundary Conditions for the Numerical Solution of Euler Equations by the Discontinuous Galerkin Methods AUTHORS: Ioannis Toulopoulos; John A. Ekaterinaris SPEAKER: Ioannis Toulopoulos	Impact of Nasal Geometry Inclusion on Numerical Simulation of Flow in Human Upper Airway AUTHORS: Prihambodo H. Saksono; Raoul van Loon; Igor Sazonov; Perumal Nithiarasu SPEAKER: Raoul van Loon	Transient Flow Analysis by Imaging Methods - Voronoi Particle Tracking Velocimetry applied to the Dam Break Flow AUTHORS: Rui Aleixo; S. Soares-Frazão; Y. Zech SPEAKER: Rui Aleixo
Hydrogen Combustion of a Double Cavity Trapped Vortex Combustor AUTHORS: Alessandro Di Marco; R. Camussi; S. Giammartini SPEAKER: Alessandro Di Marco		CFD Modelling of the Heat and Acoustic Streaming Induced by a High Power Ultrasonic Horn Reactor AUTHORS: Francisco Trujillo; Kai Knoerzer SPEAKER: Francisco Trujillo		Flow in Naturally Changing Central Airways AUTHORS: Eike Hylla; O. Frederich; Frank Thiele; Xin Wang; I. Wegner; H.-P. Meinzer; M. Puderbach SPEAKER: Eike Hylla	A Subspace Clustering Model for Image Texture Segmentation AUTHORS: Yan Nei Law; Hwee Kuan Lee; Andy M. Yip SPEAKER: Andy M. Yip
Simulation of Gas Exhaustion from a Combustion Chamber of a Reciprocating Engine AUTHORS: Milan Žaloudek; Jaroslav Fort; Herman Deconinck SPEAKER: Milan Žaloudek		Numerical Study of Thermoacoustic Wave Amplification AUTHORS: Catherine Weisman; Diana Baltean-Carlès; Patrick Le Quéré; Luc Bauwens SPEAKER: Luc Bauwens		Numerical Simulation of Airflow through Simplified Vocal Tract Geometries Relevant to Speech Production AUTHORS: Annemie Van Hirtum; K. Nozaki SPEAKER: Annemie Van Hirtum	

THE CONFERENCE BUS

P IN THE TAGUS RIVER

ETURN TO HOTELS

June 15th

8:30 – 9:10	PLENARY LECTURE: Bioinspire				
9:10 – 09:50	PLENARY LECTURE: Turbulent combustion modeling: new appro				
09:50 – 10:10					
Room	**Room A1**	**Room A2**	**Room A3**	**Room A4**	**Room B5**
	1.3 MS03 Towards Industrial Application of Higher Order Methods: Part I	**2.3 Shape Optimization**	**3.3 Flows with Heat Transfer I**	**4.3 MS22 Regularization Models of Incompressible Flows**	**5.3 Multiphase Flows II**
	Organizers: K. Hillewaert, J.-F. Remacle, B. Helenbrook			**Organizer: Carlos D. Perez-Segarra**	
10:10 – 10:40				On the Symmetry-Preserving Regularization Model on Complex Flows using Unstructured Grids AUTHORS: Oriol Lehmkuhl; R. Borrell; Ivette Rodríguez; Carles D. Pérez-Segarra; Assensi Oliva SPEAKER: Oriol Lehmkuhl	
10:20 – 10:40	Achievements of the European Research Project Adigma on Adaptive Higher Order Methods for Aerospace Applications AUTHORS: Norbert Kroll SPEAKER: Norbert Kroll	Active Flow Control Bump Design Using Hybrid Nash-Game Coupled to Evolutionary Algorithms AUTHORS: D. S. Lee; Jacques Periaux; L. F. Gonzalez; K. Srinivas; Eugenio Oñate SPEAKER: Jacques Periaux	CFD Analysis of a Density-Dependent Valve within a Hot Water System AUTHORS: Sally S. Bell; Helen Smith; David Christie; John N. Macbeth; Neil Finlayson SPEAKER: Neil Finlayson		Bubble Model for Cavitating Flow Simulation including High Void Fraction Region AUTHORS: Nobuo Tsurumi; Yoshiaki Tamura; Yoichiro Matsumoto SPEAKER: Nobuo Tsurumi
10:40 – 11:00	High-Order Accurate P-Multigrid Discontinuous Galerkin Solution of the RANS and k-omega Turbulence Model Equations AUTHORS: F. Bassi; A. Colombo; N. Franchina; Antonio Ghidoni; Stefano Rebay SPEAKER: Stefano Rebay	Global and Multidisciplinary Aerodynamical Optimal Shape's Design, including Deformation AUTHORS: Adriana Nastase SPEAKER: Adriana Nastase	Simulation of the Fouling Layer Evolution in Heat Transfer Surfaces AUTHORS: E. Suárez; Concepción Paz; J. Porteiro; A. Eirís SPEAKER: Concepción Paz	Regularization Modeling of Wall-Bounded Turbulent Flows AUTHORS: F. X. Trias; Andrey V. Gorobets; Roel W. C. P. Verstappen; Assensi Oliva SPEAKER: F. X. Trias	Simulation of Unsteady Cavitation on a 3D Foil AUTHORS: Richard Marcer; C. Audiffren SPEAKER: Richard Marcer
11:00 – 11:20	Memory and CPU Efficient Iterative Schemes for Higher Order DGM AUTHORS: Koen Hillewaert; Jean-François Remacle; Brian T. Helenbrook SPEAKER: Koen Hillewaert	Hadamard Incomplete Sensitivity and Shape Optimization AUTHORS: Bijan Mohammadi; Olivier Pironneau SPEAKER: Bijan Mohammadi	Thermal Comfort Evaluation using a CFD Study and a Transient Thermal Model of the Human Body AUTHORS: Senhorinha Teixeira; Celina Leão; Manuela Neves; Pedro Arezes; Ana Cunha; José Carlos Teixeira SPEAKER: Senhorinha Teixeira	On Restraining Convective Subgrid-Scale Production in Burgers' Equation AUTHORS: Joop Helder; Roel W. C. P. Verstappen SPEAKER: Joop Helder	A Numerical Study for the Effect of Bubble Size Distribution on the Flow Behaviour in Bubble Column Reactors AUTHORS: Evren Bayraktar; Otto Mierka; Stefan Turek SPEAKER: Evren Bayraktar
11:20 – 11:40	High-Order Discontinuous Galerkin Methods for Incompressible Flows AUTHORS: Adeline de Montlaur; Sonia Fernández-Méndez; Antonio Huerta SPEAKER: Adeline de Montlaur	One-Shot Shape Optimization using the Exact Hessian AUTHORS: Dimitrios I. Papadimitriou; Kyriakos C. Giannakoglou SPEAKER: Kyriakos C. Giannakoglou	CFD Parametric Study of Ambient Air Velocity Magnitude Influence in Thermal Behaviour of Open Refrigerated Display Cabinets AUTHORS: Pedro D. Gaspar; L. C. C. Gonçalves; Ge Xiao SPEAKER: Pedro D. Gaspar	Regularization Modeling of Commutator-Errors in Large-Eddy Simulation of Wall-Bounded Turbulence AUTHORS: Bernard J. Geurts SPEAKER: Bernard J. Geurts	A Coupled Finite Volume Solver for the Simulation of Disperse Multiphase Flows AUTHORS: Marwan Darwish; Amer Abdel Aziz; F. Moukalled SPEAKER: Amer Abdel Aziz
11:40 – 12:00	Anisotropic Adaptation for Viscous Flows AUTHORS: Jerzy Majewski SPEAKER: Jerzy Majewski	CAD-Based Aerodynamic Optimization of Geometrically Complex Turbine Components AUTHORS: Marcus Meyer; M. Herm; Z. Schabowski SPEAKER: Marcus Meyer	Numerical Simulation of Three-Dimensional Convection AUTHORS: Igor Palymskiy SPEAKER: * * * * *	Regularizations of Turbulent Flow AUTHORS: Roel W. C. P. Verstappen SPEAKER: Roel W. C. P. Verstappen	An Implicit Low-Diffusive HLL Scheme for Cavitating Flow Simulation AUTHORS: Marco Bilanceri; F. Beux; Maria-Vittoria Salvetti SPEAKER: Marco Bilanceri
12:00 – 12:20					3D Two-Phase Flow Simulations using XFEM AUTHORS: Sven Gross SPEAKER: Sven Gross
12:20 – 13:30					
	1.4 MS03 Towards Industrial Application of Higher Order Methods: Part II	**2.4 Optimization and Control I**	**3.4 Flows with Heat Transfer II**	**4.4 MS32 New Trends on Diffusion Phenomena**	**5.4 Gas Particle Flows I**
	Organizers: K. Hillewaert, J.-F. Remacle, B. Helenbrook			**Organizers: J. A. Ferreira, P. Oliveira**	
13:30 – 14:00					
13:40 – 14:00	A Reconstructed Discontinuous Galerkin Method for Compressible Flows on Arbitrary Grids AUTHORS: Hong Luo SPEAKER: Hong Luo	Surrogate Models Based on Function and Derivative Values for Aerodynamic Global Optimization AUTHORS: Manuel Bompard; Jacques Peter; Jean-Antoine Désidéri SPEAKER: Manuel Bompard	Numerical Simulation of Turbulent Natural Convection and Gas Radiation in Differentially Heated Cavities using FVM, DOM and LES AUTHORS: Roser Capdevila; Carles D. Pérez-Segarra; Oriol Lehmkuhl; G. Colomer SPEAKER: Roser Capdevila	Supraconvergent-Superconvergent Methods for Non Fickian Models AUTHORS: Sílvia Barbeiro; José A. Ferreira; Luís Pinto SPEAKER: Luís Pinto	DNS of Particulate Flows with Collisions using a Parallel DEM-DLM/FD Method: PeliGRIFF AUTHORS: Guillaume Vinay; A. Wachs; V. Hergault SPEAKER: Guillaume Vinay
14:00 – 14:20	Construction of Very High Order Residual Distribution Schemes for Compressible Flow Problems. AUTHORS: Rémi Abgrall; Arnaud Krust; Adam Larat; Pascal Jacq; Guillaume Baurin; Mario Ricchiuto SPEAKER: Rémi Abgrall	Geometry Optimization for Quasi-Uniform Flows from Supersonic Nozzles AUTHORS: David Pasquale; J. Harinck; Alberto Guardone; Stefano Rebay SPEAKER: David Pasquale	Non-Oberbeck-Boussinesq Natural Convection in a Tall Differentially Heated Cavity AUTHORS: Deniz Kizildag; J. Ventosa; Ivette Rodríguez; Assensi Oliva SPEAKER: Deniz Kizildag	On a "Flux Tracking" of Drug Release Processes AUTHORS: José A. Ferreira; P. Oliveira; Pascoal Silva SPEAKER: Pascoal Silva	An Investigation on Powder Stream in Cold Gas Spray (CGS) Nozzles AUTHORS: Rocco Lupoi; W. O'Neill SPEAKER: Rocco Lupoi

Tuesday,

14:20 – 14:40	Recent Developments on High-Order Multidimensional Upwind Residual Distribution for Equations with Viscous Terms AUTHORS: Tiago Quintino; N. Villedieu; Herman Deconinck SPEAKER: Tiago Quintino	Model-Reduced Gradient-Based History Matching AUTHORS: Malgorzata P. Kaleta; R. G. Hanea; A. W. Heemink; J. D. Jansen SPEAKER: Malgorzata P. Kaleta	Adaptive Two-Step Peer Methods for Thermally Coupled Incompressible Flow AUTHORS: Bettina Gottermeier; Jens Lang SPEAKER: Jens Lang	A Numerical Method for a Non-Fickian Diffusion Problem Based on the Inversion of Laplace Transforms AUTHORS: Adérito Araújo; Cidália Neves; Ercília Sousa SPEAKER: Cidália Neves	Internal Turbulent Two-Phase Flows Formed by Wall Injection of Fluid and Particles AUTHORS: Konstantin N. Volkov SPEAKER: Konstantin N. Volkov
14:40 – 15:00	The Discontinuous Galerkin Method with Divergence-Free Elements for Incompressible Flows AUTHORS: Harald van Brummelen; Kris van der Zee SPEAKER: Harald van Brummelen	Model-Reduced Variational Data Assimilation for Shallow Water Flow Modelling AUTHORS: Muhammad U. Altaf; A. W. Heemink; M. Verlaan SPEAKER: Muhammad U. Altaf	The Impact of Cylinder Roughness on the Drag Forces and Heat Transfer AUTHORS: Frank Dierich; P. A. Nikrityuk SPEAKER: Frank Dierich	Convergence Analysis of a Decoupled Scheme for Poro-Elasticity AUTHORS: Sílvia Barbeiro SPEAKER: Sílvia Barbeiro	Fast Multipole Boundary Element Method with Lagrangian Particle Tracking for Viscous Flows AUTHORS: Jure Ravnik; Matjaž Hriberšek; Leopold Škerget SPEAKER: Jure Ravnik
15:00 – 15:20	Towards High-Fidelity Industrial CFD AUTHORS: Frédéric Chalot; Pierre-Elie Normand SPEAKER: Pierre-Elie Normand	Dynamic Characterization of an Actuated Bluff Body Wake AUTHORS: Gregor Gilka; Dirk M. Luchtenburg; Frank Thiele; Marek Morzynski SPEAKER: Gregor Gilka	Buoyancy Effects on Forced Convection from a Horizontal Cylinder in Parallel and Contra Flow Regimes AUTHORS: Armando A. Soares; M. D. Naia; N. J. Gonçalves; A. Rouboa SPEAKER: Armando A. Soares	A Non-Oscillatory Numerical Method for the Advection-Diffusion Equation AUTHORS: Ercília Sousa SPEAKER: Ercília Sousa	The Effect of Vortex Finder Diameter on Cyclone Separator Performance and Flow Field AUTHORS: Khairy Elsayed; Chris Lacor SPEAKER: Khairy Elsayed
15:20 – 15:40	Adjoint-Based Error Estimation and Goal-Oriented Mesh Refinement for Aerodynamic Flows AUTHORS: Ralf Hartmann SPEAKER: Ralf Hartmann		A Direct Numerical Simulation Study on the Mean Velocity and Temperature in Mixed Convection from an Open Cavity AUTHORS: Gorg Abdelmassih; Youssef Stiriba; A. Vernet; J. A. Ferré ; F. X. Grau SPEAKER: Gorg Abdelmassih		Numerical Simulation of the Flow Field and the Separation Behavior of Hydrocyclones AUTHORS: Steffen Schütz; Kathrin Kissling; Manfred Piesche SPEAKER: Steffen Schütz
15:40 – 16:00					
	1.5 MS03 Towards Industrial Application of Higher Order Methods: Part III	**2.5 Optimization and Control II**	**3.5 Flows with Heat Transfer III**	**4.5 Computational Problems in Microfluidics**	**5.5 Gas Particles Flows II**
	Organizers: K. Hillewaert, J.-F. Remacle, B. Helenbrook				
16:00 – 16:30					
16:10 – 16:30	From h to p Efficiency: Implementation of Low- and High-Order Spectral/hp Element Discretisations in Two and Three Dimensions. AUTHORS: Chris D. Cantwell; Peter E. J. Vos; Spencer J. Sherwin; Robert M. Kirby SPEAKER: Chris D. Cantwell	Efficiency of Geometric Multigrid Methods for Solving the Sensitivity Equations within Gradient Based Flow Optimization Problems AUTHORS: Julian Michaelis; J. Siegmann; G. Becker; Michael Schäfer SPEAKER: Julian Michaelis	Numerical Simulation of Cooling Gas Injection using Adaptive Multiscale Techniques AUTHORS: W. Dahmen; Thomas Gotzen; S. Müller SPEAKER: Thomas Gotzen	CFD-Based Shape Optimization of Microchannels using Adjoint Variable Method AUTHORS: Osamu Tonomura; M. Kano; S. Hasebe SPEAKER: Osamu Tonomura	Simulation of Turbulent Collision of Cloud Droplets using Optimized Lagrangian Integration Algorithm AUTHORS: Bogdan Rosa; Hossein Parishani; Orlando Ayala; Lian-Ping Wang; Wojciech W. Grabowski SPEAKER: Bogdan Rosa
16:30 – 16:50	On the Coupling Between a High-Order Spectral Difference Method and Large Eddy Simulation AUTHORS: Matteo Parsani; G. Ghorbaniasl; Chris Lacor SPEAKER: Matteo Parsani	Multi-Stage Design Approach for High Fidelity Aerodynamic Optimization of Multi-Body Geometries by Kriging Based Models and Adjoint Variable Method AUTHORS: JinWoo Yim; ByungJoon Lee; Chongam Kim SPEAKER: JinWoo Yim	Heat Transfer on a Hot Surface Impinged by a Cold Circular Liquid Jet AUTHORS: Jian-Jun Shu SPEAKER: Jian-Jun Shu	Parametric Study of a Multiscale Fluidic System using a Hybrid CFD/MD Approach AUTHORS: Soon-Heum Ko; Nayong Kim; Dimitris E. Nikitopoulos; Dorel Moldovan; Shantenu Jha SPEAKER: Soon-Heum Ko	Numerical Simulation of a Two-Phase Flow in an Oil Filter by Coupling a LES Approach with a Lagrangian Particle Tracking AUTHORS: João P. Pinto; Yann Fraigneau; Luis A. Oliveira; Christian Tenaud SPEAKER: João P. Pinto
16:50 – 17:10	Iterative Solution of Discontinuous Galerkin Formulations of the Euler Equations AUTHORS: Brian T. Helenbrook; Brendan S. Mascarenhas; Koen Hillewaert; Jean-Francois Remacle SPEAKER: Brian T. Helenbrook	Optimal Control for Incompressible Steady MHD Flows via Constrained Extended Boundary Approach AUTHORS: Giorgio Bornia; Antonio Cervone; Sandro Manservisi SPEAKER: Giorgio Bornia	First Industrial Application of the 3D Silicone Molding Simulation Tool AUTHORS: Lukasz T. Matysiak; Piotr Saj; Robert M. Sekula SPEAKER: Lukasz T. Matysiak	Gas-Plasma Coupling in Miniaturized Spaces AUTHORS: Ashraf Farahat; Manish Jugroot SPEAKER: Ashraf Farahat	A Diffusion-Inertia Model (DIM) for Predicting Aerosol Transportation and Deposition in Turbulent Flows AUTHORS: Roman V. Mukin; N. I. Drobyshevsky; A. S. Filippov; V. F. Strizhov; L. I. Zaichik; L. S. Mukina SPEAKER: Roman V. Mukin
17:10 – 17:30	An Explicit Space-Time Adaptive Discontinuous Galerkin Scheme AUTHORS: Christoph Altmann; G. Gassner; Claus-Dieter Munz SPEAKER: Christoph Altmann	Assimilation of Meteorological Observations using Large-Scale Optimization AUTHORS: Yasuyoshi Horibata SPEAKER: Yasuyoshi Horibata	Simulation of the Thermal Heat Exchange Near the Phoenix Mars Lander AUTHORS: J. A. Davis; Carlos F. Lange SPEAKER: Carlos F. Lange	Numerical Investigation on the Efficiency of a Passive Micromixer with the Lattice Boltzmann Method AUTHORS: Ernesto Monaco; Kai H. Luo; Gunther Brenner SPEAKER: Ernesto Monaco	Finite Element Simulations of Colloidal Aggregates under Shear Flow Conditions AUTHORS: Eva C. Schlauch; Volker Becker; Marek Behr; Heiko Briesen SPEAKER: Eva C. Schlauch
17:30 – 17:50	Curvilinear Mesh Generation for CFD AUTHORS: Jean-François Remacle; Christophe Geuzaine; Bastien Gorissen; Koen Hillewaert SPEAKER: Jean-François Remacle	Application of Response Surface Methodology for Modeling and Optimization of the Cyclone Separator for Minimum Pressure Drop AUTHORS: Khairy Elsayed; Chris Lacor SPEAKER: Khairy Elsayed	Conjugate Problem of Forest Fire Initiation and Spread in Three Dimensional Setting AUTHORS: A. Perminov SPEAKER: * * * * *	A New Approach to Solve Microfluidic Systems AUTHORS: Bijan Mohammadi; Jukka Tuomela SPEAKER: Jukka Tuomela	
17:50 – 18:10	Unstructured High Order Grids and their Application in Discontinuous Galerkin Methods AUTHORS: Florian Hindenlang; G. Gassner; Claus-Dieter Munz SPEAKER: Florian Hindenlang			CFD Analysis of Creeping Flow around a Spherical Particle in Rectangular Microchannels AUTHORS: José L. C. Santos; Vítor Geraldes SPEAKER: Vítor Geraldes	

ed Flow Optimization. Petros Koumoutsakos, ETH Zurich.

oaches for highly refined simulations. Luc Vervisch, CORIA-CNRS & INSA Rouen, France.

Coffee Break

Room B6	Room A7	Room C8	Room D9	Room E10	Room F11
6.3 Combustion and Reactive Flows II	**7.3 Numerical Methods I**	**8.3 MS36 Implicit Solution Methods for MHD Systems**	**9.3 MS09 Current Trends in Modelling and Simulation of Turbulent Flows: Part I**	**10.3 MS33 Computational Methods Applied to Aneurysms and their Treatment: Part I**	**11.3 MS34 Mathematical and Numerical Aspects of the Motion of Viscous Fluids**
		Organizers: John Shadid, Luis Chacon	**Organizers: S. Jakirlic, D. von Terzi (ERCOFTAC SIG15)**	**Organizers: A. Robertson, A. Sequeira**	**Organizers: T. Bodnar, S. Necasova**
Large-Eddy Simulation of Forced Ignition in Highly Strained Bluff-Body Burner AUTHORS: Vallinayagam Subramanian; Pascale Domingo; Luc Vervisch SPEAKER: Luc Vervisch	Nonconforming in Time Domain Decomposition Method for Porous Media Applications AUTHORS: Laurence Halpern; Caroline Japhet; Pascal Omnes SPEAKER: Pascal Omnes	Implicit and Semi-Implicit Treatments for MHD Computations AUTHORS: Rony Keppens; Allard-Jan van Marle; Chun Xia SPEAKER: Rony Keppens	The ERCOFTAC Knowledge Base Wiki - an Aid for Establishing Quality and Trust in CFD AUTHORS: Wolfgang Rodi SPEAKER: Wolfgang Rodi	Effects of Aspect Ratio on the Hemodynamics in Elastase Induced Rabbit Aneurysms AUTHORS: Zijing Zeng; Mike Durka; David F. Kallmes; Anne M. Robertson SPEAKER: Anne M. Robertson	Numerical Simulation of Blood Flow using Generalized Oldroyd-B Model AUTHORS: Lubos Pirkl; Tomás Bodnár SPEAKER: Lubos Pirkl
Investigations of Ignition Probability of a Forced Ignited Turbulent Methane Jet using LES AUTHORS: Jeremy Weckering; A. Sadiki; Johannes Janicka; E. Mastorakos SPEAKER: Jeremy Weckering	Variational Multiscale Method for Compressible Flows AUTHORS: Mariano Vázquez; Margarida Moragues Ginard; G. Houzeaux; Romain Aubry; S. Marras SPEAKER: Margarida Moragues Ginard	Scalable, Nonlinear, Implicit Algorithms for Extended Magnetohydrodynamics AUTHORS: Luis Chacón SPEAKER: Luis Chacón	Lessons Learned from the ERCOFTAC SIG15 Computational Workshops: Flow in a 3D Diffuser as an example AUTHORS: Suad Jakirlic; Dominic von Terzi; Michael Breuer SPEAKER: Suad Jakirlic	Parametric Modeling of Cerebral Aneurysms AUTHORS: Zijing Zeng; Mike Durka; Howard Yonas; Akira Takahashi; Hasballah Zakaria; Anne M. Robertson SPEAKER: Zijing Zeng	Theoretical Aspects of Motion of Fluid around a Rotating Rigid Body AUTHORS: R. Farwig; R. B. Guenther; Sarka Necasová; E. A. Thomann SPEAKER: Sarka Necasová
Subgrid Combustion Modelling for Large Eddy Simulation (LES) of Turbulent Combustion using Eddy Dissipation Concept (EDC) AUTHORS: Balram Panjwani; Ivar S. Ertesvag; Andrea Gruber; Kjell Erik Rian SPEAKER: Balram Panjwani	High Order Scheme for Compressible Turbulent Flows AUTHORS: Christelle Wervaecke; H. Beaugendre; B. Nkonga SPEAKER: Christelle Wervaecke	HiFi – Implicit Semi-Structured Spectral Element Code for Multi-Fluid Applications. AUTHORS: Vyacheslav S. Lukin; Alan H. Glasser SPEAKER: Vyacheslav S. Lukin	Reynolds Stress Modeling for Complex Aerodynamic Flows AUTHORS: Bernhard Eisfeld SPEAKER: Bernhard Eisfeld	Data Assimilation for Incompressible Navier-Stokes: Merging of Images, Measurements and Numerical Results in Blood Flow Simulations AUTHORS: Alessandro Veneziani SPEAKER: Alessandro Veneziani	On Drag Computations of Rough Surfaces: Modeling, Simulations and Model Reduction by Applying Homogenization AUTHORS: Elfriede Friedmann SPEAKER: Elfriede Friedmann
Studying Swirling Flames using Highly Resolved Simulations of an Industrial Premixed Burner AUTHORS: Vincent Moureau; Pascale Domingo; Luc Vervisch SPEAKER: Vincent Moureau	Selective Limiting by a Moving-Least Squares Technique AUTHORS: Xesús Nogueira; Luis Cueto-Felgueroso; Ignasi Colominas; Fermín Navarrina; Manuel Casteleiro SPEAKER: Xesús Nogueira	An Efficient High-Order Implicit Algorithm for 3D Magnetohydrodynamic Studies of Strongly Magnetized Plasmas using C1 Finite Elements AUTHORS: Stephen C. Jardin; N. M. Ferraro; J. Breslau; J. Chen SPEAKER: Stephen C. Jardin	Zonal Detached Eddy Simulation for Technical Aerodynamic Flows AUTHORS: Sébastien Deck SPEAKER: Sébastien Deck	Coherent Structure and Blood Flow Dynamics in the Normal and Aneurysmatic Aorta AUTHORS: Jacopo Biasetti; F. Hussain; T. C. Gasser SPEAKER: Jacopo Biasetti	A Method of Consistent Averages for the Computational Solution to the Fluid Dynamic Equations AUTHORS: Frederick Ferguson; Gafar Elamin; Mookesh Dhanasar SPEAKER: Frederick Ferguson
Numerical Simulation of Rod Stabilized Turbulent Premixed Flames AUTHORS: Bhuvaneswaran Manickam; Siva P. R. Muppala; J. Franke; F. Dinkelacker SPEAKER: Bhuvaneswaran Manickam	Equivalence Conditions for Finite Volume / Element Discretizations in Cylindrical Coordinates AUTHORS: Dante De Santis; Gianluca Geraci; Alberto Guardone SPEAKER: Dante De Santis	Implicit Schemes in a Multi-Physics and Multi-Application Code: Balancing Efficiency and Flexibility AUTHORS: Gabor Toth; Bart van der Holst SPEAKER: Gabor Toth	Computational Uncertainty in Turbulent Flow Simulations: Towards a Numerical Error Bar AUTHORS: Dimitris Drikakis; Filipe Inok SPEAKER: Filipe Inok		Local Projection Stabilization for the Numerical Simulation of Convection Dominated Flows AUTHORS: Petr Knobloch; Lutz Tobiska SPEAKER: Petr Knobloch
Predicting Complex Turbulent Flames using Large Eddy Simulation and Flamelet-Based Tabulated Chemistry AUTHORS: C. Olbricht; F. Hahn; Anja Ketelheun; Johannes Janicka SPEAKER: Johannes Janicka	Numerical Simulation of Unsteady Dusty Gas Flow through the Moving and Stationary Cascades of Airfoils AUTHORS: Denis Romanyuk; Yury Tsirkunov SPEAKER: Denis Romanyuk	Initial Performance of Fully-Coupled AMG and Approximate Block Factorization Preconditioners for Solution of Implicit FE Resistive MHD AUTHORS: John N. Shadid; Eric C. Cyr; Roger P. Pawlowski; Ray S. Tuminaro; Luis Chacón; Paul T. Lin SPEAKER: John N. Shadid			Shape Stability of Incompressible Fluids Subject to Navier's Slip AUTHORS: Jan Stebel SPEAKER: Jan Stebel

Lunch Break

6.4 MS13 Non-Deterministic Simulation in CFD: Part I	**7.4 Numerical Methods II**	**8.4 Shallow Water Flows**	**9.4 MS09 Current Trends in Modelling and Simulation of Turbulent Flows: Part II**	**10.4 MS33 Computational Methods Applied to Aneurysms and their Treatment: Part II**	**11.4 RANS Models for Turbulent Flows I**
Organizers: C. Lacor, H. Bijl			**Organizers: S. Jakirlic, D. von Terzi (ERCOFTAC SIG15)**	**Organizers: A. Robertson, A. Sequeira**	
Comparison of Intrusive and Non-Intrusive Polynomial Chaos Methods for CFD Applications in Aeronautics AUTHORS: Giuseppe Onorato; G. Ghorbaniasl; G. J. A. Loeven; H. Bijl; Chris Lacor SPEAKER: Chris Lacor	An Artificial Compressibility Treatment for Unsteady Incompressible Flows using High Order Discontinuous Galerkin Methods AUTHORS: Vinh-Tan Nguyen SPEAKER: Vinh-Tan Nguyen	A Regularization Method for the Numerical Solution of Shallow Water Equations AUTHORS: Tatiana G. Elizarova; Jean-Claude Lengrand SPEAKER: Tatiana G. Elizarova	Aspects of Simulating Synthetic-Jet Injection into Attached and Separated Boundary Layers AUTHORS: Michael A. Leschziner; G. M. Fishpool; S. Lardeau SPEAKER: * * * * *	Computational Hemodynamics of Intracranial Aneurysms: Modelling and Geometrical Sensitivity AUTHORS: A. M. Gambaruto; J. Janela; Alexandra Moura; Adélia Sequeira SPEAKER: Alexandra Moura	An Unstructured Implicit Approach for Numerical Weather Prediction AUTHORS: Romain Aubry; Mariano Vázquez; G. Houzeaux SPEAKER: Romain Aubry
Coupling Intrusive and Non Intrusive Polynomial Chaos for Solving Stochastic Systems of Conservation Laws AUTHORS: Gaël Poëtte; Didier Lucor; Bruno Després SPEAKER: Didier Lucor	Stabilized Discontinuous Galerkin Approximations for Fourth-Order Stokes-Like Problems AUTHORS: Antonio G. B. da Cruz; E. G. D. do Carmo; F. P. Duda SPEAKER: Antonio G. B. da Cruz	A Finite Difference Technique for Solving the Second Order Constitutive Equation for Three-Dimensional Free Surface Flows AUTHORS: Murilo F. Tomé; Igor Revoredo SPEAKER: Murilo F. Tomé	Analysis of Unsteadiness in Transonic Shock/Boundary Layer Interactions AUTHORS: Matteo Bernardini; Sergio Pirozzoli; Francesco Grasso SPEAKER: Sergio Pirozzoli	The Importance of Computational Methods applied to Aneurysms and their Treatment AUTHORS: Jorge G. Campos; Adélia Sequeira; David Rodrigues SPEAKER: David Rodrigues	A Hamiltonian Particle Method for Hydrostatic Flow in Isentropic Coordinates AUTHORS: Bob Peeters; Onno Bokhove; J. Frank SPEAKER: Bob Peeters

Stochastic Quasi Gas Dynamics Equations as a Base for Particle Methods AUTHORS: Sergey V. Bogomolov SPEAKER: Sergey V. Bogomolov	A Consistent Regularization of the Incompressible Navier-Stokes Equations via Computation of the Vorticity AUTHORS: Mika Malinen SPEAKER: Mika Malinen	A Parallel Domain Decomposition Approach for the Implicit Solution of Shallow Water Equations on the Cubed-Sphere AUTHORS: Xiao-Chuan Cai SPEAKER: Xiao-Chuan Cai	Lagrangian Methods for Determining the Turbulent Prandtl Number in DNS of Wall Turbulence AUTHORS: Dimitrios V. Papavassiliou; Chiranth Srinivasan SPEAKER: Dimitrios V. Papavassiliou	Numerical Modeling of a Multi-Mechanism Damage for Cerebral Arterial Tissue AUTHORS: Mariarita de Luca SPEAKER: Mariarita de Luca	Urban Wind-Concentrator Tower for Energy Conversion AUTHORS: Markus Rütten; Roland Kessler; Mikhail Konstantinow SPEAKER: Markus Rütten
Numerical Methods for Uncertainty Propagation in High Speed Flows AUTHORS: Gianluca Iaccarino; Per Pettersson; Jan Nordström; Jeroen A. S. Witteveen SPEAKER: Jeroen A. S. Witteveen	A Stabilized Formulation for the Incompressible Navier–Stokes Equations using Finite Calculus AUTHORS: Prashanth Nadukandi; Eugenio Oñate; Julio Garcia; Sergio R. Idelsohn SPEAKER: Prashanth Nadukandi	A Shallow Water Model with Viscosity and Dependence on Depth AUTHORS: José M. Rodríguez; Raquel Taboada-Vázquez SPEAKER: José M. Rodríguez	Implicit Large Eddy Simulation of Complex Flows AUTHORS: Stefan Hickel; Nikolaus A. Adams SPEAKER: Stefan Hickel	Calibrating Reduced Dimension Models for 3D Patient Specific Fluid-Structure Interaction Simulations AUTHORS: Mahmoud M. Ismail; Michael W. Gee; Andrew Comerford; Wolfgang A. Wall SPEAKER: Mahmoud M. Ismail	Time Domain Buffeting Analysis of a Large-Span Cable-Stayed Bridge AUTHORS: Shuxian Hong; Álvaro Cunha SPEAKER: Shuxian Hong
A Simple, Flexible and Generic Deterministic Approach to Uncertainty Quantifications in Non Linear Problems: Application to Fluid Flow Problems AUTHORS: Rémi Abgrall; P.M. Congedo; C.Corre; S. Galera SPEAKER: Rémi Abgrall	Stability and Convergence Analysis of an X-FEM Formulation for Incompressible Flow AUTHORS: E. Sala-Lardies; Sonia Fernández-Méndez; Antonio Huerta SPEAKER: Antonio Huerta	Three-Dimensional Inertial Thin Film Flow on Planar Substrates Containing Occlusions AUTHORS: Sergii Veremieiev; Philip H. Gaskell; Yeaw C. Lee; Harvey M. Thompson SPEAKER: Sergii Veremieiev	Reliability of Large-Eddy Simulation of Buoyancy-Driven Turbulent Mixing AUTHORS: Bernard J. Geurts SPEAKER: Bernard J. Geurts		Effects of Geometry Modification on the Aerodynamics of a Generic Bridge Deck Section AUTHORS: Eric Didier; Daniel C. Vaz; António R. J. Borges SPEAKER: Daniel C. Vaz
Effects of Geometric Tolerance in Fluid Dynamics AUTHORS: Lucia Parussini; Valentino Pediroda; Carlo Poloni SPEAKER: Lucia Parussini		Modeling Wetting and Drying of Shallow Water in Estuaries with Tidal Flats AUTHORS: Maria de L. C. Barros; P. C. C. Rosman; J. C. F. Telles ; J. P. S. Azevedo SPEAKER: * * * * *			Unsteady Viscous Analysis of Low-Re Gust-Airfoil Interaction AUTHORS: Vladimir Golubev; Miguel Visbal SPEAKER: Vladimir Golubev

Coffee Break

6.5 MS13 Non-Deterministic Simulation in CFD: Part II	**7.5 Numerical Methods III**	**8.5 Free Surface Flows**	**9.5 MS09 Current Trends in Modelling and Simulation of Turbulent Flows: Part III**	**10.5 MS31 Numerical Methods for Viscoelastic Fluids**	**11.5 RANS Models for Turbulent Flows II**
Organizers: C. Lacor, H. Bijl			**Organizers: S. Jakirlic, D. von Terzi (ERCOFTAC SIG15)**	**Organizers: R. Becker, D. Capatina**	
Robust Optimization of Dense Gas Flows under Uncertain Operating Conditions AUTHORS: Paola Cinnella; Samuel Hercus SPEAKER: Samuel Hercus	A Mimetic Spectral Element Method for Equations of Fluid Dynamics AUTHORS: Jasper J. Kreeft; Artur Palha; M. I. Gerritsma SPEAKER: Jasper J. Kreeft	Stabilised Finite Element for High Reynolds Number, LES and Free Surface Flow Problems AUTHORS: Guillaume François; Elie Hachem; Thierry Coupez SPEAKER: Guillaume François	Turbulent Transport Modelling for PANS and other Bridging Closure Approaches AUTHORS: Sharath S. Girimaji; Branislav Basara; Aditya Murthi; Dasia Reyes SPEAKER: Sharath S. Girimaji	Adaptive Finite Elements for Viscoelastic Flows AUTHORS: Roland Becker; Daniela Capatina SPEAKER: Roland Becker	Robust Multigrid Solution of RANS Equations with Two-Equation Turbulence Models AUTHORS: Mark Wasserman; Yair Mor-Yossef; Irad Yavneh; J. B. Greenberg SPEAKER: Mark Wasserman
Effects of Modeling Uncertainties in Condensing Wet-Steam Flows through Supersonic Nozzles AUTHORS: Michele Giordano; Samuel Hercus; Paola Cinnella SPEAKER: Samuel Hercus	NURBS-Enhanced Finite Element Method AUTHORS: Ruben Sevilla; Sonia Fernández-Méndez; Antonio Huerta SPEAKER: Sonia Fernández-Méndez	Absorbing Boundary Conditions for Wave Simulations around Offshore Structures AUTHORS: Roel Luppes; Arthur E. P. Veldman; Peter R. Wellens SPEAKER: Roel Luppes	Recent Progress in Hybrid Temporal-LES/RANS Modeling AUTHORS: Rémi Manceau; Thomas B. Gatski; Atabak Fadai-Ghotbi; Christophe Friess; Jacques Borée SPEAKER: Rémi Manceau	Nonconforming Finite Element Approximation of Polymers Flows for Large Weissenberg Numbers AUTHORS: Roland Becker; Daniela Capatina; Julie Joie SPEAKER: Julie Joie	3D Numerical Simulations of the Impingement of a Turbulent Swirling Jet against a Solid Wall AUTHORS: Joaquin Ortega-Casanova; P. Castillo; R. Fernandez-Feria SPEAKER: Joaquin Ortega-Casanova
Non-Intrusive Stochastic Studies for External and Internal Flows using the elsA Software AUTHORS: Marc Lazareff; Jacques Peter; Antoine Fourmaux SPEAKER: Marc Lazareff	A C/DG-FEM Solution of an Improved Boussinesq System for Surface Water Waves. AUTHORS: Nuno D. Lopes; P. J. S. Pereira ; L. Trabucho SPEAKER: Nuno D. Lopes	Simulation of Two-Phase Flows with Free Surface in a Tank using Arbitrary Lagrangean-Eulerian and Level Set Coupled Method AUTHORS: Tadashi Watanabe SPEAKER: Tadashi Watanabe	Reconstruction of Turbulence Properties for Stochastical Turbulence Modeling AUTHORS: Bernhard Stoevesandt; Robert Stresing; Andrei Shishkin; Claus Wagner; Joachim Peinke SPEAKER: Bernhard Stoevesandt	FEM Multigrid Techniques for Viscoelastic Flow AUTHORS: Stefan Turek SPEAKER: Stefan Turek	RANS Modeling of Flow in Rotating Cavity System AUTHORS: Sébastien Poncet; R. Da Soghe; B. Facchini SPEAKER: Sébastien Poncet
Parametric Uncertainty Quantification in Modeling Methane Thermal Partial Oxidation within Inert Porous Media AUTHORS: Miguel A. A. Mendes; José M. C. Pereira; José C. F. Pereira SPEAKER: Miguel A. A. Mendes	Solution of the 2D Navier-Stokes Equations with the LBIE Method and RBF Cells AUTHORS: Jevgenija Pavlova; Sellountos J. Euripides; Adélia Sequeira SPEAKER: Jevgenija Pavlova	A Parallel Free-Surface-Modelling Technology for Application to Aircraft Fuel-Sloshing AUTHORS: Arnaud Malan; Oliver Oxtoby SPEAKER: Oliver Oxtoby	Symmetry-Preserving Regularization Models of the Navier-Stokes Equations AUTHORS: Roel W. C. P. Verstappen SPEAKER: Roel W. C. P. Verstappen	Realistic Constitutive Laws for Polymer Flows AUTHORS: Didier Graebling SPEAKER: Didier Graebling	Robust Implementation of the Spalart-Allmaras Turbulence Model for Unstructured Grid AUTHORS: Nikhil Vijay Shende; Yair Mor-Yossef SPEAKER: Yair Mor-Yossef
Uncertainty Quantification Based on Forward Sensitivity Analysis in Sisyphe AUTHORS: Jan Riehme; Rebekka Kopmann; Uwe Nauman SPEAKER: Jan Riehme	Numerical Solution of Convection Diffusion Equations with the Discretization of the Lie Derivative AUTHORS: Artur Palha; Jasper J. Kreeft; M. I. Gerritsma SPEAKER: Artur Palha	Numerical Simulation of Wave Overtopping in Externally Excited Tanks AUTHORS: Ender Demirel; I. Aydm SPEAKER: Ender Demirel		On the Stability of Numerical Schemes Modeling Non-Newtonian Fluids AUTHORS: J. W. Barrett; Sébastien Boyaval; C. Le Bris; T. Lelièvre; C. Mangoubi SPEAKER: Sébastien Boyaval	Mathematical Modelling of Supersonic Flow over Open Cavity with Mass Supply AUTHORS: Natalya N. Fedorova; M. A. Goldfeld; I. V. Zhitineva SPEAKER: Natalya N. Fedorova
	Enhanced Divergence-Free Elements for Efficient Incompressible Flow Simulations in the PDE Framework Peano AUTHORS: Tobias Neckel; Miriam Mehl; Christoph Zenger SPEAKER: Tobias Neckel			Monolithic FEM Techniques for Nonlinear Flow with Temperature/Concentration, Pressure and Shear-Dependent Viscosity AUTHORS: Jaroslav Hron; Stefan Turek; H. Damanik; A. Ouazzi; P. Pustejovská SPEAKER: Jaroslav Hron	

nesday, June 16th

8:30 – 9:10	PLENARY LECTURE: Global dynamics of transitional and				
9:10 – 9:50	PLENARY LECTURE: Industrial constraints and requirements for				
9:50 – 10:10					
Room	**Room A1**	**Room A2**	**Room A3**	**Room A4**	**Room B5**
	1.6 STS I: Innovative Digital Optimization and Control Technologies for Greener Multi-physics Aeronautics and Aero-engine Design	**2.6 Adaptive Grids I**	**3.6 Fluid-Structure Interaction**	**4.6 MS24 Computational Atmosphere and Ocean Dynamics**	**5.6 Moving Boundary Problems I**
	Organizers: Jacques Periaux and Dietrich Knoerzer			**Organizer: Juha H. Videman**	
10:10 – 10:40					
10:20 – 10:40	Challenges for More Effective, Environmentally Friendly Air Transport AUTHORS: Adel Abbas SPEAKER: Adel Abbas	Octree Based Unstructured Grid Coarsening Method for 3D Multigrid Applications AUTHORS: Emel Mahmutyazicioglu; Ismail H. Tuncer; Mehmet Haluk Aksel SPEAKER: Ismail H. Tuncer	Application of a Discontinuous Characteristic Based Split Scheme for Fluid-Structure Interaction AUTHORS: Ralf Unger; Matthias C. Haupt; Peter Horst SPEAKER: Ralf Unger	Climate Prediction: a Multidisciplinary Computational Fluid Dynamics Problem AUTHORS: João Teixeira SPEAKER: João Teixeira	A Novel Multi-D Finite-Volume Method for Advection Problems with Embedded Moving-Boundaries AUTHORS: Yunus Hassen; Barry Koren SPEAKER: Barry Koren
10:40 – 11:00	Towards concurrent multi-disciplinary design and optimization AUTHORS: Herman Deconinck ; T. Verstraete; Tiago Quintino SPEAKER: Herman Deconinck	H- and P- Adaptive Incompressible Flow Solutions on Cartesian Grids using Least Squares Spectral Element Method AUTHORS: Altug Ozcelikkale; Cuneyt Sert SPEAKER: Cuneyt Sert	Comparison of Algorithms for Strong Coupled Partitioned Fluid-Structure Interaction – Efficiency versus Simplicity AUTHORS: Thomas Gallinger; Kai-Uwe Bletzinger SPEAKER: Thomas Gallinger	Island Wake Asymmteries: from Laboratory to Numerical Modelisation AUTHORS: Alexandre Stegner; R. Caldeira; C. Dong SPEAKER: Alexandre Stegner	A Mesh Topology Change ALE Framework for Efficient Body Large-Displacement Adaptive Simulations AUTHORS: Geraldine Olivier; Frederic Alauzet SPEAKER: Geraldine Olivier
11:00 – 11:20	Reduction of environmental effects of civil aircraft through multi objective flight plan optimization AUTHORS: L. F. Gonzalez; D. S. Lee; Jacques Periaux; R. Walker; Eugenio Oñate SPEAKER: L. F. Gonzalez	Partitioned Fluid-Structure Interaction Simulations using a Hierarchical Cartesian Flow Solver AUTHORS: Miriam Mehl; Bernhard Gatzhammer; Tobias Neckel SPEAKER: Miriam Mehl	Mechanical and Thermal Fluid Structure Interaction of Non-Contacting Gas Seals in Jet Engines AUTHORS: Yu Du; Michael Schäfer SPEAKER: Yu Du	Univariate High Resolution Assimilation of Non-State Parameters into Ocean Models AUTHORS: Emanuel F. Coelho SPEAKER: Emanuel F. Coelho	A Level-Set Based Cut-Cell Method for Flows with Complex Moving Boundaries AUTHORS: Claudia Günther; Daniel Hartmann; Matthias Meinke; Wolfgang Schröder SPEAKER: Claudia Günther
11:20 – 11:40	Towards Substantial Drag Reduction for Transonic Wings using Aerodynamic Optimisation with Shock Control through Reduced Wing Sweep AUTHORS: Ning Qin SPEAKER: Ning Qin	Numerical Simulation of the Opening of Aerodynamic Control Surfaces with Two-Dimensional Unstructured Adaptive Meshes AUTHORS: Giuseppe Quaranta; Dario Isola; Alberto Guardone SPEAKER: Giuseppe Quaranta	Fluid-Structure Interaction of Body with Elastic Wall AUTHORS: Esmatullah M. Sharify; Norio Arai; Shun Takahashi SPEAKER: Norio Arai	Mountain Wave Drag Amplification by Resonance in Flow with a Vertically Oscillating Scorer Parameter AUTHORS: Miguel A. C. Teixeira; José L. Argaín; Pedro M. A. Miranda SPEAKER: Miguel A. C. Teixeira	Aircraft Control Surface Deflection using Adaptive Radial Basis Functions AUTHORS: Andreas K. Michler; Ralf Heinrich SPEAKER: Andreas K. Michler
11:40 – 12:00	Challenges for CFD-dominant Multi-physics Analysis and Design Systems AUTHORS: Charles Hirsch SPEAKER: * * * * *	Goal-Oriented Anisotropic Mesh Adaptation for Unsteady Flow AUTHORS: Anca Belme; A. Dervieux; Frederic Alauzet SPEAKER: Anca Belme	Fluid-Structure Coupling Simulations using a Virtual Flux Method AUTHORS: Koji Morinishi; Tomohiro Fukui SPEAKER: Koji Morinishi	Numerical Modeling of Vorticity Dynamics in Oceanic Wakes AUTHORS: Dmitri Boutov; Aires J. P. dos Santos; Euclides A. Luis; Juha H. Videman SPEAKER: Euclides A. Luis	Numerical Simulation of Moving Boundary Problems with the New Euleran Method AUTHORS: Andrey Minakov; Andrey Gavrilov; A. Dekterev SPEAKER: Andrey Minakov
12:00 – 12:20		An Linf-Lp Space-Time Anisotropic Mesh Adaptation Strategy for Time-Dependent Problems AUTHORS: Frederic Alauzet; Geraldine Olivier SPEAKER: Frederic Alauzet	The Influence of the Structural Model on the Stability of Coupling Iterations in Partitioned Fluid-Structure Interaction Simulations AUTHORS: Joris Degroote; Sebastiaan Annerel; Jan Vierendeels SPEAKER: Joris Degroote	Nesting a Coastal Model into a Large-Scale Ocean Basin Model: an Intercomparison Exercise in the Bay of Biscay AUTHORS: Guillaume A. F. Riflet SPEAKER: Guillaume A. F. Riflet	Gust Response of a Typical Section via CFD and Analytical Solution AUTHORS: Marco Berci; S. Mascetti; A. Incognito; V. V. Toropov; R. H. Hewson; Philip H. Gaskell SPEAKER: Marco Berci
12:20 – 13:30					
13:00 – 15:00					POS
14:30 – 15:10	PLENARY LECTURE: Code and Solution Verification in CFD				
14:30 – 15:00	SEMI - PLENARY LECTURE: Stabilized Finite Element Sc				
15:10 – 15:20					
	1.7 STS II: Multiphysics – Multicomponents Simulations and Optimization Techniques for Propulsion Applications	**2.7 MS29 Transition and Laminar Flow Control**	**3.7 MS27 Monolithic Models and Solvers for Fluid-Structure Interaction Problems**	**4.7 MS07 Computational Wind-Farm-Wake Aerodynamics**	**5.7 Moving Boundary Problems II**

Wed

	Organizer: R. Dénos	Organizer: J. Melo de Sousa	Organizers: Thomas Richter, Stefan Turek	Organizer: B. Koren	
15:20 – 15:50 15:30 – 15:50	Multi-Component and Multi-Physics CFD Simulations for the Prediction of Gas Turbine Flows AUTHORS: L.Y.M. Gicquel; E. Collado; J. Amaya; N. Gourdain; T. Poinsot SPEAKER: L.Y.M. Gicquel	May Transient Growth Theory Explain Isolated Roughness Induced Transition? AUTHORS: Olivier Vermeersch; D. Arnal SPEAKER: Olivier Vermeersch	Monolithic Newton-Multigrid Solver for Fluid-Structure-Interaction Problems AUTHORS: Stefan Turek; Jaroslav Hron SPEAKER: Stefan Turek	Study of Isolated Wakes and their Superposition in Wind Farms, using Different Turbulence Models AUTHORS: Antonio Crespo; E. Migoya; A. Jiménez SPEAKER: Antonio Crespo	A Numerical Method for Moving-Boundary Problems of Compressible Viscous Flow AUTHORS: Daniel Hartmann; Lennart Schneiders; Matthias Meinke; Wolfgang Schröder SPEAKER: Daniel Hartmann
15:50 – 16:10	Aero-Mechanical Optimization of Contra-Rotating Open Rotor AUTHORS: M. Leborgne; E. Chérière; V. Iliopoulou; I. Lepot SPEAKER: M. Leborgne	Modelling of Roughness-Induced Transition using Local Variables AUTHORS: Patrick Dassler; Dragan Kozulovic; Andreas Fiala SPEAKER: Patrick Dassler	Fluid Structure Interaction with Large Deformation and Free Structure-Movement in a Monolithic Formulation AUTHORS: Thomas Richter SPEAKER: Thomas Richter	Linearity Analysis of Wake Effects Induced by Complex Terrain and Wind Turbines through CFD Wind Farm Models AUTHORS: Daniel Cabezón; Kurt S. Hansen; R. J. Barthelmie SPEAKER: Daniel Cabezón	A Fixed Eulerian Mesh-Based Scheme using Level Set Function for Airbag Deployment Simulation including the Effect of Outside Air AUTHORS: Gaku Hashimoto; Kenji Ono SPEAKER: Gaku Hashimoto
16:10 – 16:30	Multi-objective automated compressor optimization using a coupled CFD-FEM process chain AUTHORS: Christian Voß SPEAKER: Christian Voß	Optimal Disturbances and Receptivity in 3D Boundary Layers AUTHORS: David Tempelmann; Ardeshir Hanifi; Dan S. Henningson SPEAKER: David Tempelmann	Implicit Partitioned Coupling with Global Multigrid in FSI AUTHORS: Stephen Sachs; Dörte C. Sternel; Michael Schäfer SPEAKER: Stephen Sachs	ACD Modelling of Wake Interactions in Horns Rev Wind Farm AUTHORS: Stefan Ivanell; Robert Mikkelsen; Jens N. Sørensen; Kurt S. Hansen; Dan S. Henningson SPEAKER: Stefan Ivanell	A 3D Finite Element Approach for Mesoscopic Fluid-Structure Interaction AUTHORS: Ursula M. Mayer; Wolfgang A. Wall SPEAKER: Ursula M. Mayer
16:30 – 16:50	Aeroacoustic Optimization of Propeller Blades in a Pusher Configuration AUTHORS: Antonio Pagano; Mattia Barbarino; Damiano Casalino; Luigi Federico SPEAKER: Antonio Pagano	High Reynolds Number Transition Experiments in the ETW Test Facility with the Pathfinder Model AUTHORS: Jean Perraud; Itham Salah El Din; Geza Schrauf; Ardeshir Hanifi; Raffaele Donelli; Stefan Hein; Uwe Fey; Yasuhiro Egami; Thomas S. J. Streit SPEAKER: Jean Perraud	On Block Preconditioners for Monolithic Fluid-Structure Interactions AUTHORS: Bärbel Janssen; Thomas Wick SPEAKER: Thomas Wick	Numerical Study of Influence of Wind Shear on Power Production of Wind Turbines AUTHORS: Niels Troldborg; Frederik Zahle; Helge Aa. Madsen SPEAKER: Niels Troldborg	Vortices Formation for Medusa-Like Objects AUTHORS: Vladimir Lazunin; Vladimir Savchenko SPEAKER: Vladimir Lazunin
16:50 – 17:10		The Telfona Pathfinder Model, a Second Look AUTHORS: Thomas S. J. Streit; Geza Schrauf; Itham Salah El Din; Ubaldo Cella; Uwe Fey; Yasuhiro Egami SPEAKER: Thomas S. J. Streit	Numerical Analysis on the Prediction of Closing Time of the Lift Check Valve using CIP Method AUTHORS: Jung H. Lee; J. H. Kim; C. S. Song; N. Hur SPEAKER: Jung H. Lee	Analysis of Fourth-Order Accurate Symmetry-Preserving Boundary Conditions for the Incompressible Navier-Stokes Equations AUTHORS: Benjamin Sanderse; Barry Koren SPEAKER: Benjamin Sanderse	Application of Dynamic Mesh in CFD Modeling of Wind Erosion on an Arbitrary Pile Shape AUTHORS: Amir B. Farimani; Almerindo D. Ferreira; António C. M. Sousa SPEAKER: Amir B. Farimani
17:10 – 17:30		Experimental and Numerical Investigation of the Laminar-Turbulent Transition Mechanisms in the Boundary Layer on 2D and 2.5D Models in the Low-Turbulence Wind Tunnel AUTHORS: S. L. Chernyshev; Alexander I. Ivanov; A. Ph. Kiselev; V. A. Kuzminskiy; D. A. Sboev; S. V. Zhigulev SPEAKER: Alexander I. Ivanov	Added Mass Effects of Compressible and Incompressible Flows and Solution Methods for FSI AUTHORS: Harald van Brummelen SPEAKER: Harald van Brummelen		Comparison of Hydrodynamic Parameters of 2D and 3D Models of Monofin through a Model of Fluid-Structure Interaction AUTHORS: Nicolas Bideau; L. Monier; F. Razafimahery; L. Rakotomanana SPEAKER: Nicolas Bideau
19:00 – 19:15	BOARDING TO THE CON				
20:00					

turbulent separation bubbles. Neil D. Sandham, University of Southampton, UK.

aeronautical flow control applications. Jean-Claude Courty, Dassault-Aviation, France.

Coffee Break

Room B6	Room A7	Room C8	Room D9	Room E10	Room F11
6.6 MS01 Adjoint Methods in Industrial CFD Optimisation: Part I	**7.6 Hybrid RANS/LES I**	**8.6 MS04 Computational Fluid Dynamics with OpenFOAM: Part I**	**9.6 DNS/LES I**	**10.6 Physiological Flows II**	**11.6 Non-Newtonian Flows**
Organizers: J.-D. Mueller, F. Duddeck, M. Meyer		**Organizer: G. Tabor**			
Adjoint CFD Codes through Automatic Differentiation AUTHORS: Dominic Jones; Faidon Christakopoulos; Jens-D. Müller SPEAKER: Dominic Jones	Delayed Detached Eddy Simulation of Aerodynamics Controls with Synthetic Jets AUTHORS: Sol K. Jee; Omar D. López; Robert D. Moser SPEAKER: Sol K. Jee	OpenFOAM®; an Exeter Perspective AUTHORS: Gavin R. Tabor SPEAKER: Gavin R. Tabor	Direct Numerical Simulations of the Flow around One and Two Side-By-Side Infinite Cylindres at Subcritical Low Reynolds Numbers AUTHORS: Y. Kahil; Sofiane Benhamadouche; P. Sagaut SPEAKER: Sofiane Benhamadouche	Comparison of Body-Fitted and Immersed Boundary Methods for Biomechanical Applications AUTHORS: Bruno Tayllamin; S. Mendez; F. Nicoud SPEAKER: Bruno Tayllamin	Development of a k-w Turbulence Model for FENE-P Fluids AUTHORS: Pedro M. R. Resende; F. T. Pinho; B. A. Younis; K. Kim; R. Sureshkumar SPEAKER: Pedro M. R. Resende
CAD-Based Shape Optimisation using Adjoint Sensitivities AUTHORS: Guangxu Yu; Jens-D Müller SPEAKER: Guangxu Yu	Hybrid RANS/LES of Low Reynolds Number Round Impinging Jets AUTHORS: Slawomir Kubacki; Erik Dick SPEAKER: Slawomir Kubacki	CFD Simulation of Bubble Columns using the VOF Model AUTHORS: Michael Harasek; Andras Horvath; Christian Jordan; Christian Kuttner SPEAKER: Michael Harasek	Direct Numerical Simulation of Turbulent Wakes: Flow Past a Sphere at Re=5000 AUTHORS: Ivette Rodríguez; Oriol Lehmkuhl; R. Borrell; Assensi Oliva; Carles D. Pèrez-Segarra SPEAKER: Ivette Rodríguez	Analysis of Blood Flow in a Dissected Aorta by Computational Fluid Dynamics AUTHORS: Yi Fan; K. X. Qing; Stephen W. K. Cheng; K. W. Chow SPEAKER: Yi Fan	Numerical Simulation of Director Orientation of Tumbling Nematic Liquid Crystals in Channel Flow AUTHORS: Pedro A. Cruz; Murilo F. Tomé; Sean McKee; Iain W. Stewart SPEAKER: Pedro A. Cruz
Anisotropic Grid Adaptation using Adjoint Sensitivities AUTHORS: Armen Jaworski; Jerzy Majewski; L. Laniewski-Wollk; J. Rokicki SPEAKER: Armen Jaworski	Flow Structure Analysis Close to Air Jet Vortex Generator AUTHORS: Pawel Flaszynski SPEAKER: Pawel Flaszynski	Simulating Cavitating Flows with LES in OpenFOAM AUTHORS: Rickard E. Bensow; Göran Bark SPEAKER: Rickard E. Bensow	Flow Past a Circular Curved Cylinder in Uniform Shear AUTHORS: José P. Gallardo; George K. El Khoury; Bjønar Pettersen ; Helge I. Andersson SPEAKER: José P. Gallardo	Simulation of Blood Flow in Human Aorta including Thirteen Main Arteries AUTHORS: Erke Aribas; Senol Piskin; M. Serdar Celebi SPEAKER: Erke Aribas	A Primal-Dual Formulation for the Bingham Flow AUTHORS: E. Haber; Alessandro Veneziani; Alexis Aposporidis SPEAKER: Alexis Aposporidis
A Global Mesh Regularization Approach for Two and Three Dimensional Grids AUTHORS: Electra Stavropoulou; M. Hojjat; R. Wuchner; Kai-Uwe Bletzinger SPEAKER: Electra Stavropoulou	Detailed Numerical Study of Turbulent Flows in Air Curtains AUTHORS: Julian E. Jaramillo; Carles D. Pèrez-Segarra; Oriol Lehmkuhl; Assensi Oliva SPEAKER: Julian E. Jaramillo	Industrial Optimisation Solutions Based on OpenFOAM® Technology AUTHORS: Stamatina Petropoulou SPEAKER: Jordi Gines Guerrero	Direct Numerical Simulations of Impulsively Starting Flows from Cylindrical and Conic Nozzles AUTHORS: Ionut Danaila; Marius-Gabriel Cojocaru; Sterian Danaila SPEAKER: Ionut Danaila	Three-Phase Numerical Simulation of Blood Flow in the Ascending Aorta with Dissection AUTHORS: Guojun Hou; K. Tsagakis; D. Wendt; S. Stühle; H. Jakob; Wojciech Kowalczyk SPEAKER: Wojciech Kowalczyk	Immersed Boundary Method applied to Simplified Drilling Problems with Non-Newtonian Fluids AUTHORS: Elie L. M. Padilla; A. L. Martins; Aristeu da Silveira Neto SPEAKER: * * * * *
		OpenFOAM Simulation of Mass Transfer in Spacer-Filled Channels AUTHORS: José L. C. Santos; João G. Crespo; Vítor Geraldes SPEAKER: José L. C. Santos	Parallel DNS Simulation of a Spatially Developing Planar Turbulent Jet AUTHORS: Ricardo J. N. dos Reis; Carlos B. da Silva; José C. F. Pereira SPEAKER: Ricardo J. N. dos Reis	Vortex Dynamics in Thoracic Aortic Aneurysms AUTHORS: Hiroshi Suito; Takuya Ueda; Manami Murakami; Geoffrey D. Rubin SPEAKER: Hiroshi Suito	Deterministic Numerical Methods for the Micro–Macro Model of Dilute Polymeric Fluids AUTHORS: David J. Knezevic SPEAKER: David J. Knezevic
		Implementation of a 3D Compressible MHD Solver Able to Model Transonic Flows AUTHORS: Carlos M. Xisto; José C. Páscoa; Paulo J. Oliveira; Davide A. Nicolini SPEAKER: Carlos M. Xisto	Numerical Simulation of Flow Past a Rectangular Flat Plate at Incidence AUTHORS: Dan Yang; Bjønar Pettersen ; Helge I. Andersson; Vagesh D. Narasimhamurthy SPEAKER: Dan Yang	Numerical Study of Pulsatile Flow through Models of Aortic Valve Stenoses and Assessment of Gorlin Equation AUTHORS: Ramesh K. Agarwal; Robert Rifkin; E. Okpara; J. Daiber SPEAKER: * * * * *	

Lunch Break

STER SESSION 2

D: Examples for RANS solvers. Luís Eça, Technical University of Lisbon, Portugal.

olution to Handle Complex Heat and Turbulent Flows in Industrial Furnaces. Elie Hachem.

Coffee Break

6.7 MS01 Adjoint Methods in Industrial CFD Optimisation: Part II	**7.7 MS15 Verification and Validation**	**8.7 MS04 Computational Fluid Dynamics with OpenFOAM: Part II**	**9.7 DNS/LES II**	**10.7 Physiological Flows III**	**11.7 MS26 Iterative Methods for Incompressible Flows**

Organizers: J.-D. Mueller, F. Duddeck, M. Meyer	**Organizer: L. Eça**	**Organizer: G. Tabor**			**Organizer: Kees Vuik**
Timestepping for Adjoint CFD Codes from Automatic Differentiation AUTHORS: Faidon Christakopoulos; Dominic Jones; Jens-D Müller SPEAKER: Faidon Christakopoulos	Verification and Validation Exercise for the Flow Over a Backward Facing Step AUTHORS: Luís Eça; G. Vaz; M. Hoekstra SPEAKER: M. Hoekstra	A Coupled Pressure Based Solution Algorithm Based on the Volume-Of-Fluid Approach for Two or More Immiscible Fluids AUTHORS: Kathrin Kissling; Julia Springer; Hrvoje Jasak; Steffen Schütz; Karsten Urban SPEAKER: Kathrin Kissling	A POD-Galerkin Reduced Model with Updated Coefficients for Smagorinsky LES AUTHORS: Sebastian Ullmann; Jens Lang SPEAKER: Sebastian Ullmann	Numerical Simulation of a 3D Bileaflet Mechanical Heart Valve: FSI Coupling Algorithm AUTHORS: Sebastiaan Annerel; Joris Degroote; Jan Vierendeels SPEAKER: Sebastiaan Annerel	Preconditioned Krylov Methods for the Incompressible Navier Stokes Equations AUTHORS: C. Vuik; M. ur Rehman; A. Segal SPEAKER: C. Vuik
Adjoint RANS for Aftship Design AUTHORS: Arthur Stück; Jörn Kröger; Thomas Rung SPEAKER: Arthur Stück	Numerical Model of the Electrical Transformer Epoxy Casting Process and its Hierarchical Validation AUTHORS: Zbigniew P. Bulinski; Andrzej J. Nowak SPEAKER: Zbigniew P. Bulinski	Ship and Propulsor Hydrodynamics AUTHORS: Mattias Liefvendahl; N. Alin; M. Chapuis; C. Fureby; U. Svennberg; C. Troëng SPEAKER: Mattias Liefvendahl	Is the Dynamic Procedure Appropriate for All SGS Models? AUTHORS: Hubert B. Toda; F. Nicoud; K. Truffin SPEAKER: Hubert B. Toda	Computational Modelling for Cardiovascular Medicine: Patient-Specific Modelling of Artificial Heart Valve Hemodynamic Performance. AUTHORS: Claire Wood; Antonio J. Gil; Oubay Hassan; S. S. Ashraf SPEAKER: Claire Wood	Scalable Robust Solvers for Unstructured Fe Geodynamic Modeling Applications: Solving the Stokes Equation for Models with Large Localized Viscosity Contrasts. AUTHORS: T. Geenen; M. ur Rehman; S. P. MacLachlan; G. Segal; C. Vuik; A. P. van den Berg; W. Spakman SPEAKER: T. Geenen
Optimal Location of Suction or Blowing Jets using the Continuous Adjoint Approach AUTHORS: Alexandros S. Zymaris; Dimitrios I. Papadimitriou; Kyriakos C. Giannakoglou; Carsten Othmer SPEAKER: Kyriakos C. Giannakoglou	V&V II - Verification of a High Order Direct Numerical Simulation Code using the Method of Manufactured Solutions for the V European Conference on Computational Fluid Dynamics (Eccomas CFD 2010) AUTHORS: Homero G. da Silva; Marcello A. F. de Medeiros SPEAKER: Homero G. da Silva	Design of a Computational-Fluid-Dynamics Tool for the Simulation of Pre-Specified Fire Scenarios in Enclosures AUTHORS: Aram Amouzandeh; Shankar Shrestha; Matthias Zeiml; Roman Lackner SPEAKER: Aram Amouzandeh	When Does Eddy Viscosity restrict the Dynamics to Large Eddies? AUTHORS: Roel W. C. P. Verstappen SPEAKER: Roel W. C. P. Verstappen	Numerical Simulation of the Fluid-Structure Interaction in Stented Aneurysms. AUTHORS: Joaquín Mura; Miguel A. Fernández; Jean-Frédéric Gerbeau SPEAKER: Joaquín Mura	Interface Preconditioners for Domain Decomposition Methods for the Stationary Navier-Stokes Equations AUTHORS: Daniel Loghin SPEAKER: Daniel Loghin
Automotive Applications of Adjoint-Based Topology and Shape Optimization AUTHORS: Carsten Othmer SPEAKER: Carsten Othmer	Verification and Validation of Molecular Dynamic Simulation AUTHORS: Janusz Bytnar; Anna Kucaba-Pietal; Zbigniew Walenta SPEAKER: * * * * *	Dynamic Mesh Handling in OpenFOAM applied to Fluid-Structure Interaction Simulations AUTHORS: Hrvoje Jasak; Zeljko Tukovic SPEAKER: Hrvoje Jasak	DNS and LES of the Turbulent Entrainment in Jets: Physics and Subgrid-Scale Modeling AUTHORS: Carlos B. da Silva; Ricardo J. N. dos Reis; Rodrigo Taveira; José C. F. Pereira SPEAKER: Carlos B. da Silva	Non-Newtonian Behavior of Blood and Arterial Curvature Influence Variations of Wall Shear Stress in Stented Artery AUTHORS: Wanhua Zhao; Xiaofei Wang; Yongfei Jiang; Jun Zhang SPEAKER: Yongfei Jiang	An Iterative Data Assimilation Procedure for including Velocity Measurements into Navier-Stokes Simulations AUTHORS: Marta D'Elia; Alessandro Veneziani SPEAKER: * * * * *
Ingredients for Efficient Aerodynamic One-Shot Shape Optimization AUTHORS: Nicolas R. Gauger; Emre Özkaya; Caslav Ilic SPEAKER: Nicolas R. Gauger	V&V II: Validation and Uncertainty Quantification of Thermochemical Models using Shock Tube Radiation Measurements AUTHORS: Jeremy Jagodzinski; Kenji Miki; Marco Panesi; Ernesto E. Prudencio; Serge Prudhomme SPEAKER: Kenji Miki	CFD of Convective Cooling of Hydro Power Generators using OpenFOAM AUTHORS: Pirooz Moradnia; Hakan Nilsson SPEAKER: Pirooz Moradnia	Turbulence Forcing Scheme in Physical Space Based on Ornstein-Uhlenbeck Process AUTHORS: Jaroslav Volavy; Matej Forman; Miroslav Jicha SPEAKER: Jaroslav Volavy	Immersed Boundary Method Predictions of Shear Stresses for Different Flow Topologies Occurring in Cerebral Aneurysms AUTHORS: Julia Mikhal; David J. L. Penha; C.H. Slump; Bernard J. Geurts SPEAKER: Julia Mikhal	
		LES Modeling of Combustion for Propulsion Applications using OpenFOAM AUTHORS: Christer Fureby; Ekaterina Fedina; N. Alin; J. Tegnér SPEAKER: Ekaterina Fedina		Numerical Simulation of the Tissue Ablation in High Intensity Focused Ultrasound Therapy with an Array Transducer AUTHORS: Kohei Okita; Kenji Ono; Shu Takagi; Yoichiro Matsumoto SPEAKER: Kohei Okita	

NFERENCE BANQUET FROM HOTELS

BANQUET

June 17th

8:30 – 9:10	PLENARY LECTURE: A fast immersed boundary method with application				
9:10 – 9:50	PLENARY LECTURE: Coupling fields and scales in computational (bio) fluid dynam				
9:50 – 10:10					
Room	**Room A1**	**Room A2**	**Room A3**	**Room A4**	**Room B5**
	1.8 MS02 Algorithms for Multi-Scale Low Mach Number Flows	**2.8 Numerical Methods IV**	**3.8 MS20 Stratified Flows Modelling for Environmental Problems**	**4.8 MS25 Recent Development in Turbomachinery CFD for Industrial Applications: TRACE**	**5.8 Adaptive Grids II**
	Organizers: P. K. Smolarkiewicz, J. Szmelter		**Organizer: Philippe Fraunié**	**Organizer: Edmund Kuegeler**	
10:10 – 10:40					
10:20 – 10:40	Modeling Atmospheric Circulations with High-Resolution Methods AUTHORS: Piotr K. Smolarkiewicz SPEAKER: Piotr K. Smolarkiewicz	The German National Joint Project Muna: Management and Minimization of Uncertainties and Errors in Numerical Aerodynamics AUTHORS: Bernhard Eisfeld SPEAKER: Bernhard Eisfeld	The NEMO High Resolution Coastal Model for Wind Induced Vortices Prediction Fluid Dynamics (Eccomas CFD 2010 Lisbon) AUTHORS: Y. Ourmières; K. Guihou; C. Langlais; B. Zakardjian; Philippe Fraunié; P. Forget SPEAKER: Philippe Fraunié	Hybrid Parallelization of a Turbomachinery CFD Code: Peformance Enhancements on Multicore Architectures AUTHORS: Christian Simmendinger; Edmund Kuegeler SPEAKER: Christian Simmendinger	Development of Two and Three-Dimensional Euler Solvers for Adaptively Refined Cartesian Grids with Multigrid Applications AUTHORS: Mehtap Çakmak; Mehmet Haluk Aksel; Cuneyt Sert SPEAKER: Mehtap Çakmak
10:40 – 11:00	A Multilevel Method for Finite Volume Discretization of the Two-Dimensional Nonlinear Shallow-Water Equations AUTHORS: K. Adamy; A. Bousquet; S. Faure; J. Laminie; Roger Temam SPEAKER: Roger Temam	Comparison and Evaluation of Cell-Centered and Cell-Vertex Discretization in the Unstructured Tau-Code for Turbulent Viscous Flows AUTHORS: Gang Wang; Axel Schwöppe; Ralf Heinrich SPEAKER: Gang Wang	Two Numerical Schemes for Simulation of the Stratified Flows Past a Moving Body AUTHORS: Ludek Benes; J. Fürst; Philippe Fraunié SPEAKER: Ludek Benes	Turbulence Treatment in Steady and Unsteady Turbomachinery Flows AUTHORS: Martin Franke; Thomas Röber; Edmund Kuegeler; Graham Ashcroft SPEAKER: Martin Franke	Parallel Performance of Adaptive Algorithms with Dynamic Load Balancing AUTHORS: Stanislaw Gepner; J. Rokicki; Jerzy Majewski SPEAKER: Stanislaw Gepner
11:00 – 11:20	Multi-Scale Features of Baroclinic Waves in Sound-Proof, Global Simulations with Eulag AUTHORS: Joseph M. Prusa; William J. Gutowski SPEAKER: Joseph M. Prusa	3D Two-Phase Flow Simulations with the Extended Finite Element Method (XFEM) AUTHORS: Henning Sauerland; T.-P. Fries SPEAKER: Henning Sauerland	On the use of High Order Compact Schemes for the Simulation of Stably Stratified Fluid Flow AUTHORS: Tomás Bodnár; Philippe Fraunié; Karel Kozel SPEAKER: Tomás Bodnár	Predicting Transition on Low-Pressure Turbine Profiles AUTHORS: Vincent Marciniak; Edmund Kuegeler; Matthias Franke SPEAKER: Vincent Marciniak	Parallel Grid Generation for Large Eddy Simulation AUTHORS: Gary J. Page SPEAKER: Gary J. Page
11:20 – 11:40	Numerical Modeling of Multiscale Atmospheric Flows: from Cloud Microscale to Climate. AUTHORS: Wojciech W. Grabowski; Lian-Ping Wang SPEAKER: Wojciech W. Grabowski	Acceleration of CFD Computations through a Subspace Decomposition Method AUTHORS: George Pashos; Nikolaos Cheimarios ; Eleni D. Koronaki; Andreas G. Boudouvis SPEAKER: George Pashos	Direct Numerical Simulation of Internal Waves Formation in Highly Stratified Wake Flow AUTHORS: H. Houcine; Y. Chashechkin; Philippe Fraunié; Jose M. Redondo; Adel Gharbi SPEAKER: Adel Gharbi	Recent Progress in a Hybrid-Grid CFD Solver for Turbomachinery Flows AUTHORS: Kai Becker; Kathrin Heitkamp; Edmund Kuegeler SPEAKER: Kai Becker	An Adaptive Discontinuous Galerkin Method for Modeling Cumulus Clouds AUTHORS: Andreas Müller; Francis X. Giraldo SPEAKER: Andreas Müller
11:40 – 12:00	Modelling Flows through Canopies with Immersed Boundary Methods AUTHORS: Andreas Dörnbrack; C. Kühnlein; Piotr K. Smolarkiewicz SPEAKER: Andreas Dörnbrack	Optimization of the Iteration Parameters of the Krylov Subspace Methods for Simulation of Incompressible Flow AUTHORS: Alexander Shklyar; A. Arbel SPEAKER: Alexander Shklyar	Oil Spill Detection and Prediction in the NW Mediterranean Sea: New Multifractal Methods for SAR Analysis AUTHORS: Jose M. Redondo; Alexei Platonov SPEAKER: * * * * *	High-Order Accurate Implicit Runge-Kutta Schemes for the Simulation of Unsteady Flow Phenomena in Turbomachinery AUTHORS: Graham Ashcroft; Kathrin Heitkamp; Edmund Kuegeler SPEAKER: Kathrin Heitkamp	Anisotropic Adaptive Meshing and Levelset Method for Interface Capturing Problems AUTHORS: Thierry Coupez SPEAKER: Thierry Coupez
12:00 – 12:20	An Unstructured Mesh Framework for Simulation of All-Scale Atmospheric Flows AUTHORS: Joanna Szmelter; Piotr K. Smolarkiewicz SPEAKER: Joanna Szmelter	Automatic Grid Refinement for the Accurate Computation of Free-Surface Flow around Ships AUTHORS: Jeroen Wackers; Khalid Ait-Said; Michel Visonneau SPEAKER: Jeroen Wackers	Multifractal Analysis of SAR of the Ocean Surface, Currents, Eddy Structure, Oil Slicks and Diffusivity Analysis AUTHORS: Jose M. Redondo; Joan Grau; A. Matulka; Alexei Platonov SPEAKER: * * * * *	Development of a Generic Surface Mapping Algorithm for Fluid-Structure-Interaction Simulations in Turbomachinery AUTHORS: Christian Voigt; Christian Frey; Hans-Peter Kersken SPEAKER: Christian Voigt	
12:20 – 13:30					
	1.9 MS11 GPU Computing in CFD: Part I	**2.9 Numerical Methods V**	**3.9 CFD for Marine Applications I**	**4.9 Turbomachines I**	**5.9 MS28 Aerodynamic Analysis of Flapping Wings: Part I**
	Organizers: S. Turek, D. Göddeke				**Organizer: Rolf Radespiel**
13:30 – 14:00					

Thursday, J

13:40 – 14:00	GPU Cluster Computing for Multigrid-FEM Solvers with Applications in CFD AUTHORS: Dominik Göddeke; Sven H. M. Buijssen; Hilmar Wobker; Stefan Turek SPEAKER: Dominik Göddeke	Streamlines of Vortical Flows in 3D Lid-Driven Cavities AUTHORS: Katsuya Ishii; Shizuko Adachi SPEAKER: Katsuya Ishii	A High-Performance Parallel Incompressible Navier-Stokes Two-Phase Flow Solver using the Level Set Method for Hydrodynamics Design. AUTHORS: Anne-Cécile Lesage; G. Houzeaux ; H. C. Owen ; Mariano Vázquez SPEAKER: Anne-Cécile Lesage	The Role of Unsteadiness on a Turbine Vane Wake with Trailing Edge Cooling AUTHORS: Gregory M. Laskowski; Frederic Felten SPEAKER: * * * * *	Flow Phenomenon in Flapping Insect Wings AUTHORS: Fritz-Olaf Lehmann SPEAKER: Fritz-Olaf Lehmann
14:00 – 14:20	Large-Scale CFD Applications on Multi-Node GPU Cluster AUTHORS: Takayuki Aoki; Marlon Arce Acuna; Xian Wang; Satoi Ogawa SPEAKER: Takayuki Aoki	Characteristic Based Nonreflecting Boundary Conditions in a Simple-Type Pressure Correction Algorithm for Low Mach Number Flows AUTHORS: Yann Moguen; Tarik Kousksou; Erik Dick; Pascal Bruel SPEAKER: Yann Moguen	SPH Simulations of Free Surface Waves and the Interaction with Objects AUTHORS: Paul H. L. Groenenboom; Bruce K. Cartwright SPEAKER: Paul H. L. Groenenboom	Time-Resolved Analysis of the Base Region in Cooled Transonic Turbine Airfoils AUTHORS: Chiara Bernardini; S. Salvadori; Francesco Martelli; G. Paniagua; B. Saracoglu SPEAKER: Chiara Bernardini	Influence of the Foil Thickness on the Thrust of Oscillating Foil AUTHORS: Marco La Mantia; Peter Dabnichki SPEAKER: Marco La Mantia
14:20 – 14:40	Porting of FEFLO to GPUs AUTHORS: Andrew Corrigan; Fernando Camelli; Rainald Löhner; Fernando Mut SPEAKER: Andrew Corrigan	Enhancements of Piso Scheme in Collocated Grids AUTHORS: Antonio Pascau; Nelson García SPEAKER: Antonio Pascau	Numerical and Experimental Analysis of the Wind Forces Acting on LNG Carrier AUTHORS: Anna D. Wnek; A. Paço; X-Q. Zhou; C. G. Soares SPEAKER: Anna D. Wnek	Adaption and use of a Compressible Flow Code for Turbomachinery Design AUTHORS: Carlos Ventura; Emilie Sauret; Peter A. Jacobs; Paul Petrie-Repar; Rowan J. Gollan; Paul van der Laan SPEAKER: Peter A. Jacobs	Effect of Vertical Translation on Unsteady Aerodynamics of a Hovering Airfoil AUTHORS: Erkan Günaydinoglu; Dilek F. Kurtulus SPEAKER: Erkan Günaydinoglu
14:40 – 15:00	Assembly of Finite Element Methods on Graphics Processors AUTHORS: Cris Cecka; E. Darve; A. Lew SPEAKER: * * * * *	Element-Based Finite Volume Method for Solid Mechanics Problems AUTHORS: Gerson Filippini; Clovis R. Maliska; Miguel Vaz Jr. SPEAKER: * * * * *		A Navier Stokes Solver for Axisymmetric Turbomachinery Analysis AUTHORS: Giulio Croce; Luca Ratto; Antonio Satta SPEAKER: Giulio Croce	A Novel Energetics Model for Examining Flapping Flight AUTHORS: Hesam Salehipour; David J. Willis SPEAKER: David J. Willis
15:00 – 15:20					
	1.10 MS11 GPU Computing in CFD: Part II	**2.10 Numerical Methods VI**	**3.10 CFD for Marine Applications II**	**4.10 Turbomachines II**	**5.10 MS28 Aerodynamic Analysis of Flapping Wings: Part II**
	Organizers: S. Turek, D. Göddeke				**Organizer: Rolf Radespiel**
15:20 – 15:50 15:30 – 15:50	Towards a Multi-GPU Solver for the Three-Dimensional Two-Phase Incompressible Navier-Stokes Equations AUTHORS: Peter Zaspel; Michael Griebel SPEAKER: Peter Zaspel	Finite Element Variational Multiscale Formulation for Low Mach Number Flows Coupled with Radiative Heat Transfer AUTHORS: Matias Avila; Ramon Codina; Javier Principe SPEAKER: Matias Avila	A Three-Dimensional Model for the Dynamics and the Free-Surface Hydrodynamics of Rowing Boats AUTHORS: Luca Formaggia; Andrea Mola; Nicola Parolini SPEAKER: Nicola Parolini	Optimal CFD Analysis for Low Power Systems AUTHORS: Mariana Simão; Helena M. Ramos SPEAKER: Mariana Simão	A Multi-Fidelity Framework for Designing Compliant Flapping Wings AUTHORS: David J. Willis; Per-Olof Persson; Hesam Salehipour; Jaime Peraire SPEAKER: David J. Willis
15:50 – 16:10	A Lattice Boltzmann 3D-GPU-Implementation on Non-Uniform Grids AUTHORS: Martin Schönherr; Martin Geier; Maik Stiebler; Manfred Krafczyk SPEAKER: Martin Schönherr	Time Integration Schemes for Incompressible Two-Phase Flow Problems AUTHORS: Patrick Esser; Arnold Reusken SPEAKER: Patrick Esser	Numerical Simulation of a Marine Propeller in a Cross Flow AUTHORS: Seth D. Schroeder; Charles M. Dai SPEAKER: Seth D. Schroeder	Numerical Simulation of Swirling Flow in Complex Hydroturbine Draft Tube using Large Eddy Simulation AUTHORS: Cédric Duprat; Sylvain Tridon; Guillaume Balarac; Stáphane Barre; Olivier Métais; Claire Ségoufin; Pierre Leroy SPEAKER: Cédric Duprat	Investigation of the Low-Reynolds Number Flow around a Flapping Flexible Airfoil AUTHORS: Ralf Unger; Matthias C. Haupt; Peter Horst SPEAKER: Ralf Unger
16:10 – 16:30	Performance Modeling and Optimization for 3D Lattice Boltzmann Simulations on Highly Parallel On-Chip Architectures: GPUs Vs. Multi-Core CPUs AUTHORS: Johannes Habich; T. Zeiser; G. Hager; G. Wellein SPEAKER: Johannes Habich	Efficient Computation of Dynamic Stability Data with a Linearized Frequency Domain Solver AUTHORS: Markus Widhalm; R. P. Dwight; R. Thormann SPEAKER: Markus Widhalm	Propeller-Flow Predictions using Turbulent Vorticity-Confinement AUTHORS: Manuel Manzke; Thomas Rung SPEAKER: Manuel Manzke	Time-Accurate Turbomachinery Simulations with Open-Source CFD; Flow Analysis of a Single-Channel Pump with OpenFOAM AUTHORS: Mikko Auvinen; Juhaveikko Ala-Juusela; Nicholas Pedersen; Timo Siikonen SPEAKER: Mikko Auvinen	Numerical Modeling of Flow Dynamics Induced by Fruit Flies During Free-Flight AUTHORS: Andrei Shishkin; Claus Wagner SPEAKER: Andrei Shishkin
16:30 – 16:50		Robust Spectral Reprojection for Discontinuous Galerkin Simulations on Unstructured Grids AUTHORS: Adrian G. Maroni; Klaus A. Hoffmann SPEAKER: Adrian G. Maroni	Multiphysics SPH for Harbor And Ocean E ngineering Hydrodynamics AUTHORS: Christian Ulrich; Thomas Rung SPEAKER: Christian Ulrich		Some Observations on Periodic and Transient Motions as Abstractions of Flapping Wing Aerodynamics AUTHORS: Michael V. OL SPEAKER: Michael V. OL
17:00 – 17:20	CLOSING				

ı to low Reynolds number aerodynamics. Tim Colonius, California Institute of Technology, USA.

ics – Advanced methods and applications. Wolfgang A. Wall, Technische Universität München, Germany.

Coffee Break

Room B6	Room A7	Room C8	Room D9	Room E10	Room F11
6.8 Flow in Porous Media	**7.8 Immersed Boundary Methods**	**8.8 Parallel Computing**	**9.8 DNS/LES III**	**10.8 MS16 Lattice Boltzmann, Particle Methods and Experiments of Complex Physiological Flows: Part I**	**11.8 MS08 CFD in Fire and Fire Safety Research**
				Organizers: A. Gambaruto, G. Pontrelli, S. Succi	**Organizer: B. Merci**
Mixed Finite Element Schemes for Fluid Flows in Fractured Porous Media with Reduced Order Modeling of Fractures with Non-Matching Grids AUTHORS: C. D'Angelo; A. Fumagalli; Anna Scotti SPEAKER: Anna Scotti	Direct Numerical Simulation (DNS) of Turbulent Flow over Wavy Surfaces AUTHORS: Bojan Niceno; Simon Kuhn SPEAKER: Bojan Niceno	Robust Workflows for Large-Scale Multiphysics Simulation AUTHORS: Toàn Nguyên; Jean-Antoine Désidéri SPEAKER: Toàn Nguyên	The Effect of Phase Transitions on the Droplet Size Distribution in Homogeneous Isotropic Turbulence AUTHORS: Briti S. Deb; Lilya Ghazaryan; Bernard J. Geurts; Hans Kuerten; Cees Van Der Geld; Herman Clercx SPEAKER: Briti S. Deb	On the Coupling of Micro and Mesoscopic Models in Hemodynamics AUTHORS: Giorgio Amati; A. M. Gambaruto; G. Pontrelli; Sauro Succi SPEAKER: Giorgio Amati	Simulation of Upward Flame Spread by Coupling a Pyrolysis Model with a CFD Calculation AUTHORS: Pieter Rauwoens; Joris Degroote; Shivanand Wasan; Jan Vierendeels; Bart Merci SPEAKER: Pieter Rauwoens
Kinetic Approach to Simulation of Multiphase Porous Media Flows AUTHORS: Boris N. Chetverushkin; Natalia G. Churbanova; Dmitrij N. Morozov; Marina A. Trapeznikova SPEAKER: Marina A. Trapeznikova	Mathematical Modeling of Non-Periodic Flows using Fourier Pseudo-Spectral and Immersed Boundary Methods AUTHORS: Felipe P. Mariano; Leonardo Q. Moreira; Aristeu da Silveira Neto SPEAKER: Felipe P. Mariano	Optimization of the Application Middleware "Sphere" for Blue Gene/L System AUTHORS: Satoshi Ito; Kenji Ono SPEAKER: Satoshi Ito	Implicit Large-Eddy Simulation of Noise Radiated by a Subsonic Jet at High Reynolds Number AUTHORS: Carlos A. S. Moser; Jorge H. Silvestrini; Marcello A. F. de Medeiros SPEAKER: Carlos A. S. Moser	Lattice Boltzmann Method in Non-Inertial Reference Frames AUTHORS: Gonçalo Silva; Viriato Semião SPEAKER: Gonçalo Silva	SMARTFIRE – the Fire Field Modelling Environment AUTHORS: John Ewer SPEAKER: John Ewer
Immersed Boundary Method Computation of Heat and Fluid Flow in Complex Porous Media AUTHORS: David J. L. Penha; Lilya Ghazaryan; Bernard J. Geurts; S. Stolz; M. Nordlund SPEAKER: David J. L. Penha	Recent Advances on the Immersed Structural Potential Method for Fluid-Structure Interaction Haemodynamic Applications. AUTHORS: Antonio J. Gil; Aurelio Arranz Carreño; J. Bonet; Oubay Hassan SPEAKER: Antonio J. Gil	Efficiency of Large-Scale CFD Simulations on Modern Supercomputers using Thousands of CPUs and Hybrid MPI+OpenMP Parallelization AUTHORS: Andrey V. Gorobets; R. Borrell; F. X. Trias; T. K. Kozubskaya; Assensi Oliva SPEAKER: Andrey V. Gorobets	Direct Numerical Simulation of the 3D Stratified Viscous Fluid Flows around a Sphere AUTHORS: Pavel V. Matyushin; Valentin A. Gushchin SPEAKER: Pavel V. Matyushin	Particle Methods for Multiscale and Multiphysics Simulations AUTHORS: Petros Koumoutsakos SPEAKER: Petros Koumoutsakos	Simulating Fire & Safety Applications with ANSYS AUTHORS: Ilona Zimmermann; Elmar Schneeloch SPEAKER: Ilona Zimmermann
Three-Dimensional Pore Scale Fluid Flow Simulation Based on Computed Microtomography Carbonate Rocks' Images AUTHORS: Jan Kaczmarczyk; Marek Dohnalik; Jadwiga Zalewska SPEAKER: Jan Kaczmarczyk	Development of an Immersed Boundary Method using Boundary Elements within a Vortex-In-Cell/Parallel Fast Multipole Method AUTHORS: Timothee Lonfils; G. Winckelmans SPEAKER: Timothee Lonfils	A Multi-Dimensional Spatial Scheme for Massively Parallel Compressible Turbulent Combustion Simulation AUTHORS: Julien Bohbot; Q. H. Tran; A. Velghe; N. Gillet SPEAKER: Julien Bohbot	Large Eddy Simulation of Jet in Cross-Flow applied to the "Micromix" Hydrogen Combustion Principle AUTHORS: Elmar Recker; W. Bosschaerts SPEAKER: Elmar Recker	Leveraging Theory from Cosmodynamics for Multi-Scale Cardiovascular Simulation AUTHORS: Amanda Peters; Simone Melchionna; Sauro Succi; Efthimios Kaxiras SPEAKER: Amanda Peters	Toward FDS6: Complex Geometry, Embedded Meshes, and Quality Assessment AUTHORS: Randall McDermott; Glenn P. Forney; Kevin McGrattan; William E. Mell SPEAKER: Randall McDermott
A 2D Compact Finite Difference Immersed Boundary Method for Flow in Porous Media AUTHORS: Paulo J. S. A. Ferreira de Sousa; Isabel Malico SPEAKER: Paulo J. S. A. Ferreira de Sousa	An Immersed Boundary Method for Large-Eddy Simulation of Fully Compressible Flows: Application to a Transonic Cavity Flow AUTHORS: Cindy Merlin; Pascale Domingo; Luc Vervisch; G. Lodato SPEAKER: Cindy Merlin	Using Grid Computing to Model Biosensors Acting in Stirred and Non-Stirred Solutions AUTHORS: Vytautas Ašeris; R. Baronas SPEAKER: Vytautas Ašeris	LES of Aircraft Wake Vortices Evolving in a Stably Stratified and Weakly Turbulent Atmosphere AUTHORS: Ivan De Visscher; G. Winckelmans SPEAKER: Ivan De Visscher	Computer Simulation of Tank-Treading and Tumbling Motions of Red Blood Cells under the Influence of the Natural State of an Elastic Cellular Membrane AUTHORS: Ken-ichi Tsubota; Shigeo Wada; Hao Liu SPEAKER: Ken-ichi Tsubota	
Calculation of the Microscale Flow through a Packed Bed using Finite Volume CFD AUTHORS: Gavin R. Tabor; M. Baker; P. G. Young SPEAKER: Gavin R. Tabor	An Immersed-Boundary Method for Solving Conjugate Heat Transfer Problems in Turbomachinery AUTHORS: S. Latorre; M. D. de Tullio; P. De Palma; Michele Napolitano; G. Pascazio SPEAKER: Michele Napolitano	A Robust Parallel ILU Solver with Grid-Independent Convergence for the Coupled Steady Incompressible Navier-Stokes Equations AUTHORS: Friederik Wubs; Jonas Thies SPEAKER: Friederik Wubs	Large-Eddy Simulation of Subsonic Round Jets with Tripped Exit Boundary Layers AUTHORS: Christophe Bogey; Olivier Marsden; Christophe Bailly SPEAKER: Christophe Bogey		

Lunch Break

6.9 Vehicles and Traffic I	**7.9 MS05 Inverse Techniques in CFD: Part I**	**8.9 MS19 Shallow Water Models for Environmental Flows: Part I**	**9.9 DNS/LES IV**	**10.9 MS16 Lattice Boltzmann, Particle Methods and Experiments of Complex Physiological Flows: Part II**	**11.9 MS21 Ventilation and Smoke Control in Underground Space: Part I**
	Organizers: R. Bialecki, H. Orlande	**Organizer: Hervé Guillard**		**Organizers: A. Gambaruto, G. Pontrelli, S. Succi**	**Organizer: João Carlos Viegas**

Large-Eddy Simulation on the Aerodynamic Pitching Stability of Road Vehicle AUTHORS: Makoto Tsubokura; Seeyuan Cheng; Takuji Nakashima; Takahide Nouzawa; Takaki Nakamura SPEAKER: Makoto Tsubokura	Inverse and Direct Techniques of the Heat Transfer Coefficient Retrieval in Impingement Jet Heat Exchange AUTHORS: Arkadiusz Ryfa; Ryszard A. Bialecki SPEAKER: Ryszard A. Bialecki	Implicit Simulations of Shallow-Water Equations with Mobile Bed AUTHORS: Marco Bilanceri; I. Elmahi; Hervé Guillard; M. V. Salvetti; F. Beux SPEAKER: Marco Bilanceri	A Flow-Controlled Chemistry Tabulation Method for Large-Eddy Simulation of Turbulent Combustion with Detailed Chemistry AUTHORS: Nicolas Enjalbert; Pascale Domingo; Luc Vervisch SPEAKER: Nicolas Enjalbert	Confocal Micro-Flow Visualization of Blood Cells AUTHORS: Rui Lima; Takuji Ishikawa; Yohsuke Imai; Takami Yamaguchi SPEAKER: Rui Lima	Smoke Control in an Underground Car Park with Impulse Ventilation Comparison with Test Results AUTHORS: João L. Aveiro; João C. Viegas SPEAKER: João C. Viegas
Assessment of Several Turbulence Models in a Supersonic Car AUTHORS: Guillermo Araya; Ben J. Evans; Oubay Hassan; Kenneth Morgan SPEAKER: Ben J. Evans	Analysis of the Selected Problems of Heat Convection AUTHORS: Ireneusz Szczygiel SPEAKER: Ireneusz Szczygiel	Explicit Runge Kutta Residual Distribution for Shallow Water Flows AUTHORS: Mario Ricchiuto; Rémi Abgrall SPEAKER: Mario Ricchiuto	Extended Variational Multiscale Methods for Turbulent Variable-Density Flow at Low Mach Number and Premixed Combustion AUTHORS: Volker Gravemeier; Florian Henke; Wolfgang A. Wall SPEAKER: Volker Gravemeier	Blood Flows via Suspended Particles and Lattice Boltzmann Methods AUTHORS: Simone Melchionna SPEAKER: Simone Melchionna	Impulse Ventilation in Underground Car Parks the Influence of Parked Cars in Smoke Control AUTHORS: João C. Viegas SPEAKER: João C. Viegas
Spray Drag Model for Bloodhound SSC AUTHORS: Lakhdar Remaki; Ben J. Evans; Oubay Hassan; Kenneth Morgan SPEAKER: Lakhdar Remaki	Temperature Inlet-Wall Boundary Condition Identification of Transient Inverse Convective Heat Transfer Problems within Channels/Pipes: Laminar Flow AUTHORS: Aziz Azimi; Mohammad R. Ghamari SPEAKER: Mohammad R. Ghamari	A Multilayer System with Mass Exchange for Shallow Water Flows Coupling with Moving Bed Equation AUTHORS: Emmanuel Audusse; Fayssal Benkhaldoun; S. Sari; Mohammed Seaid SPEAKER: * * * * *	Large Eddy Simulation in Generalized Curvilinear Coordinates and its Application to an Axisymmetric Dump Combustor AUTHORS: Balram Panjwani; Ivar S. Ertesvag; Andrea Gruber; Kjell Erik Rian SPEAKER: Balram Panjwani	Lattice Boltzmann Modelling Apllied to a Bioreactor for Bone Tissue Engineering AUTHORS: Tim J. Spencer; I. Halliday; C. M. Care; L. A. Hidalgo-Bastida; S. H. Cartmell SPEAKER: Tim J. Spencer	Indoor Car Parks – CFD Application AUTHORS: Ricardo Fernandes; D. Henriques SPEAKER: Ricardo Fernandes
Aerodynamic Optimization Study for Ford Cargo Truck Roof Spoiler & Side Extender Parts using CFD Tools AUTHORS: Cavit Cinar; M. Ö. Arslan SPEAKER: Cavit Cinar	Base Temperature Estimation of the Non-Fourier Fin with Different Profiles using Inverse Analysis AUTHORS: Aziz Azimi; Hossein Ahmadikia; Keivan Bamdad SPEAKER: Aziz Azimi	Numerical Modeling of Transient Flows Involving Erosion and Deposition of Sediments AUTHORS: Fayssal Benkhaldoun; S. Sari; Mohammed Seaid SPEAKER: Fayssal Benkhaldoun		Numerical Simulation of Blood Flows in a Vessel with Valves Based on Virtual-Flux Methods AUTHORS: Tomohiro Fukui; Koji Morinishi SPEAKER: Tomohiro Fukui	Calibration of a Numerical Jet Fan Model for Simulating Smoke Control in Underground Car Park AUTHORS: Eric Didier; Bruno Henriques; Ricardo Brás SPEAKER: Bruno Henriques
Coffee Break					
6.10 Vehicles and Traffic II	**7.10 MS05 Inverse Techniques in CFD: Part II**	**8.10 MS19 Shallow Water Models for Environmental Flows: Part II**	**9.10 Hybrid RANS/LES II**	**10.10 MS16 Lattice Boltzmann, Particle Methods and Experiments of Complex Physiological Flows: Part III**	**11.10 MS21 Ventilation and Smoke Control in Underground Space: Part II**
	Organizers: R. Bialecki, H. Orlande	**Organizer: Hervé Guillard**		**Organizers: A. Gambaruto, G. Pontrelli, S. Succi**	**Organizer: João Carlos Viegas**
CFD Optimization of Small Livestock Trailers AUTHORS: Harvey M. Thompson; C. Gilkeson; V. V. Toropov; Philip H. Gaskell; M. C. T. Wilson SPEAKER: Harvey M. Thompson	Optimal Heating Control to Prevent Solid Deposits in Pipelines AUTHORS: Flavio L. V. Vianna; Helcio R. B. Orlande; G. S. Dulikravich SPEAKER: Helcio R. B. Orlande	Solving the Multi-Layer Shallow Water Equations using the Finite Volume Modified Method of Characteristics AUTHORS: Mohammed Seaid; Fayssal Benkhaldoun SPEAKER: * * * * *	A Numerical Investigation of the Turbulent Flows using the Detached-Eddy Simulation AUTHORS: Karel Frana; V. Honzejk SPEAKER: Karel Frana	A Lattice Boltzmann Modeling of Bloodflow in Cerebral Aneurysms AUTHORS: Bastien Chopard; Daniel Lagrava; Jonas Latt; Orestis Malapinas; Rafik Ouared SPEAKER: Bastien Chopard	Natural and Mechanical Ventilation CFD Study for a Subway Station/Tunnel AUTHORS: José L. Sereno; Belén H. Tambo; Álvaro J. Santos SPEAKER: José L. Sereno
2D Micro- and Macroscopic Models for Simulation of Heterogeneous Traffic Flows AUTHORS: Boris N. Chetverushkin; Natalia G. Churbanova; Ilya R. Furmanov; Marina A. Trapeznikova SPEAKER: Natalia G. Churbanova	An Inverse Formulation for Solution of Free-Boundary Problems in Fluid Mechanics AUTHORS: Bartosz Protas; Ramesh Yapalparvi; Oleg Volkov SPEAKER: Bartosz Protas	Dry Granular Flows with Erosion and Deposition AUTHORS: C.-Y. Kuo; Boniface Nkonga; Mario Ricchiuto; Y.-C. Tai; B. Braconnier SPEAKER: * * * * *	Compressibility Effects on the Vortical Flow over a 65 Degree Swept Delta Wing. AUTHORS: Jacques Riou; Eric Garnier SPEAKER: Jacques Riou	Multiscale Coupling of a Lattice Boltzmann Simulation of Blood Flow to Cell- and Tissue-Level Processes: the Case of In-Stent Restenosis AUTHORS: Alfons G. Hoekstra SPEAKER: Alfons G. Hoekstra	Importance of CFD's on HVAC AUTHORS: Ricardo Fernandes; D. Henriques SPEAKER: Vasco Campos
	A New Viscous Inverse Design Method for Internal and External Flow over Airfoils using CFD Techniques AUTHORS: Raja Ramamurthy; Benedikt Roidl; Wahid Ghaly SPEAKER: Raja Ramamurthy		Non-Reactive Free Jet Flow: Comparison of Simulations using Different Turbulence Models with Reference Measurements AUTHORS: Regine Model; G. Lindner; D. Markus SPEAKER: Regine Model	A Simplified Particulate Model for Coarse-Grained Hemodynamics Simulations AUTHORS: Florian Janoschek; Jens Harting; Federico Toschi SPEAKER: Florian Janoschek	
			Computations of Unsteady Cavitating Flow over a Hydrofoil using Unsteady RANS and Detached Eddy Simulations AUTHORS: Andrey Gavrilov; A. Dekterev; K. Finnikov SPEAKER: Andrey Gavrilov		

CEREMONY (Room A1)