

11th OPENFOAM[®] WORKSHOP

GUIMARÃES — PORTUGAL

JUNE 26th — 30th, 2016



FINAL PROGRAM

JUNE 27th, 2016

OFW11
11th OPENFOAM[®] WORKSHOP
GUIMARÃES
2016

Sunday, June 26th

14:00 - 18:00 **Registration**

18:00 - 20:00 **Welcome Cocktail**

Monday, June 27th

8:30 - 9:00	Plenary Lectures (Grande Auditório)
	Opening Session
9:00 - 9:45	A Year in Review (Hrvoje Jasak, Wikki Lda/ Univ. Zagreb)
9:45 - 10:30	Fighting bugs with HPC – the latest challenges in designing and demonstrating aseptic performance of filling machines for milk (Ulf Lindblad, Tetra Pak)
10:30 - 11:00	Coffee-Break

	Free Surface Flows	General CFD I	Pre-processing, Post-processing, Meshing and User Environments I	Acoustics / Compressible Flows	Turbulence Modelling
	<i>(Room PA)</i>	<i>(Room S1)</i>	<i>(Room S2)</i>	<i>(Room S3)</i>	<i>(Room S4)</i>
11:00 - 11:20	MODELLING FREE-SURFACE DYNAMICS IN THE RIBBON GROWTH ON SUBSTRATE PROCESS (RGS) (P Beckstein, V Galindo, G Gerbeth)	CFD WITH OPEN SOURCE SOFTWARE – A COURSE WHERE THE STUDENTS BECOME TEACHERS AND CONTRIBUTE TO GLOBAL LEARNING (H Nilsson)	OPTIMIZATION OF FINITE VOLUME MESHES USING SPHERICITY (P Alexas, E Villiers)	SIMULATION OF THE ACOUSTIC WAVE PROPAGATION IN STEEL COMPONENTS - VALIDATION AND VERIFICATION (M Rehm, P Kodet, S Bouachrine, H Rusche)	IMPLEMENTATION OF A DIVERGENCE-FREE TURBULENT SPOT METHOD FOR SYNTHESIS OF TURBULENT VELOCITY FIELDS INTO OPENFOAM (H Kröger, N Kornev)
11:20 - 11:40	IMPLEMENTATION OF A FLEXIBLE AND MODULAR VOLUME OF FLUID MULTIPHASE FRAMEWORK FOR NON-ISOTHERMAL INCOMPRESSIBLE FLOWS (P Capobianchi, M Oliveira, M Lappa)	EPIC: LINKING EXPERTS WITH USERS AND DATA (M Turner, J Appa, J Sharpe, D Standingford)	MESH MOTION STRATEGIES AND MULTI-COUPLED MESH INTERFACES FOR THE 3D SIMULATION OF EXTERNAL GEAR PUMPS (JM Rubio, F Piscaglia, A Montorfano)	A NUMERICAL APPROACH TO POSSIBLE IDENTIFICATION OF THE NOISIEST ZONES OF A WALL SURFACE WITH A FLOW INTERACTION (K Charly, M Yann, P Raymond)	COUPLING OF OPENFOAM* AND OPEN DYNAMICS ENGINE TO DESCRIBE DUST TRANSPORT AND DEPOSITION IN A TURBULENT ATMOSPHERIC FLOW (A Ukhov)
11:40 - 12:00	SIMULATION OF A SUPER-CRITICAL BATHTUB VORTEX: COMPARISON WITH EXPERIMENTAL DATA (G Fourestier, T Santagostini, ML Boulluec, P Magaldi, YM Scolan)	RECENT ADVANCES IN PRESSURE-VELOCITY COUPLED SOLVER (T Uroic, V Vukčević, H Jasak)	A DUALISED HEX-MESH GENERATOR WITH CELL QUALITY OPTIMISATION (AJackson, E Villiers, P Alexas)	ACOUSTIC ANALYSIS OF A TURBULENT FLOW AROUND A BLUFF BODY (M Cianferro, S Ianniello, V Armenio)	HYBRID RANS/LES OF TURBULENT STRUCTURES EVOLUTION IN A DYNAMIC GEOMETRY (A Montorfano, Y Wu, F Piscaglia)
12:00 - 12:20	STUDY OF OPENFOAM VOF METHOD CAPABILITIES FOR NUMERICAL SIMULATION OF DROPLET IMPACT ON THICK LAYER AT LARGE FROUDE NUMBERS (E Davydova, V Korzhagova)	NUMERICAL ASSESSMENT OF THIRD-ORDER ACCURATE HIGH RESOLUTION SCHEMES IN OPENFOAM (D Shanmugam, T Chourushi)	DYNAMIC HEXAHEDRAL REMESHING AND FLOW SOLVING (D Winkler, J Gould)	EFFECT OF TRAILING EDGE MODIFICATION ON NOISE GENERATION OF NASA ROTOR 67 AXIAL COMPRESSOR (J Mosiezny)	FLOW SIMULATION IN SUPERSONIC COMBUSTION CHAMBER (I Gudich, O Feodoritova, N Novikova, K Manukovskii, V Zhukov)
12:20 - 12:40	EFFECTS OF SURFACE TEXTURES ON GRAVITY DRIVEN LIQUID FLOW ON INCLINED PLATE (M Isoz)	IMPROVING THE NUMERICAL STABILITY OF STEADY-STATE DIFFERENTIAL VISCOELASTIC FLOWS (C Fernandes, M Araújo, LL Ferrás, JM Nóbrega)	GAP-TOLERANT MESHING IN ICONHEXMESH (D Martineau, J Gould, J Papper)	EXTENDING OPENFOAM COMPUTATIONAL AEROACOUSTICS CAPABILITIES (I Evdokimov, M Kraposhin, A Epikhin)	MODELING OF TURBULENT FLOWS IN RECTANGULAR DUCTS OF CONSTANT SECTION USING OPENFOAM (R Faria, AD Ferreira, AMG Lopes, ACM Sousa)
12:40 - 13:00		SIMULATION OF VISCOELASTIC SINGLE- AND TWO-PHASE FLOWS AT HIGH WEISSENBERG NUMBER USING A GENERIC NUMERICAL STABILIZATION FRAMEWORK (M Niethammer, H Marschall, C Kunkelmann, D Bothe)	MESH CONVERGENCE STUDY WITH FOAM-EXTEND 3.1 FOR HYDRAULIC TURBINE DRAFT TUBE (C Devals, T Vu, Y Zhang, J Dompiere, F Guibault)	STABILITY IMPROVEMENTS OF PRESSURE-BASED COMPRESSIBLE SOLVER AND VALIDATION FOR INDUSTRIAL TURBO-MACHINERY APPLICATIONS (H Rusche, H Jasak, S Schmitt)	A ROBUST APPROACH TO GENERATING INFLOW CONDITIONS FOR SCALE-RESOLVING SIMULATIONS OF TURBULENT BOUNDARY LAYERS (T Mukha, M Liefvendahl)

13:00 - 14:30 **Lunch**

	Plenary Lectures (Grande Auditório)
	Feature Presentation - Engys
14:30 - 14:45	
14:45 - 15:30	Challenges on the Injection Molding Industry (Marcos Sampaio, Celoplás/Nanologic)

	Fluid-Structure Interaction I	General CFD II	Disperse Multiphase Flows I	Optimization and Control	Naval Hydrodynamics / Coastal / Offshore I
	<i>(Room PA)</i>	<i>(Room S1)</i>	<i>(Room S2)</i>	<i>(Room S3)</i>	<i>(Room S4)</i>
15:40 - 16:00	LUBRICATED CONTACT MODEL FOR COLD METAL ROLLING PROCESSES (V Skuric, P Jaeger, H Jasak)	SIMULATING TANK-MIXER PROBLEMS USING A TIME-VARYING MAPPED FIXED VALUE APPROACH (J Müller, K Velten)	A COMBINED EULER-EULER EULER-LAGRANGE SLURRY MODEL (A Mackenzie, A Lopez, M Stickland, W Dempster)	CAD BASED PARAMETERIZATION FOR ADJOINT OPTIMIZATION (M Damigos, E Villiers)	NUMERICAL SIMULATION OF A SINGLE FLOATING POINT ABSORBER WAVE ENERGY CONVERTER USING OPENFOAM* (B Devolder, P Rauwoens, P Troch)
16:00 - 16:20	A FLUID-STRUCTURE INTERACTION ALGORITHM FOR SHIP HYDROELASTICITY (M Graham, J Mesa, K Maki)	FLOATING POTENTIAL BOUNDARY CONDITION IN OPENFOAM (N Lavesson, T Laneryd)	IMPLEMENTATION AND EVALUATION OF AHLERT-MCLAURY EROSION MODEL ON A CYCLONE PARTICLE SEPARATOR (N Casari, C Buratto, M Pinelli, N Aldi, A Suman)	SHAPE OPTIMISATION USING COMPUTATIONAL FLUID DYNAMICS AND EVOLUTIONARY ALGORITHMS (S Daniels, A Rahat, G Tabor, J Fieldsend, R Everson)	THE HARMONIC BALANCE METHOD FOR TEMPORALLY PERIODIC FREE SURFACE FLOWS IN MARINE HYDRODYNAMICS (V Vukčević, G Cvjetić, I Gatín, H Jasak)
16:20 - 16:40	ON OPENFOAM EFFICIENCY FOR SOLVING FLOW-STRUCTURE INTERACTION PROBLEMS (K Kuzmina, I Marchevsky)	CATALYTICFOAM AND ISAT FOR THE EFFICIENT SIMULATION OF FIXED BED CATALYTIC REACTORS (M Bracconi, A Cuoci, M Maestri)	CFD ANALYSIS OF NUTRIENT MIXING DURING WINE FERMENTATION (D Schmidt, K Velten)	DISCRETE ADJOINT SENSITIVITIES IN OPENFOAM (M Towara, A Sen, U Naumann)	ISOVECTOR: A NEW GEOMETRIC VOF METHOD FOR ARBITRARY MESHES (J Roenby, H Bredmose, H Jasak)
16:40 - 17:00	PIMPLE ALGORITHM AND PARTITIONED FSI SOLVERS (P Vita, W Brandstätter)	VENTILATED CAVITY DYNAMICS BEHIND 2-D WEDGE IN INCOMPRESSIBLE FLOWS (H Choi, H Lee, SH Rhee)	MODELING OF MULTI-COMPONENT SPRAY IMPINGEMENT AND WALL FILM DEVELOPMENT IN CROSS FLOW CONDITIONS (L Nocivelli, G Montenegro, T Lucchini)	AUTOMATIC DESIGN EXPLORATION AND OPTIMIZATION USING CAESAS AND OPENFOAM (C Fuetterer)	JOINT DEVELOPMENT PROJECT ON SEAKEEPING SIMULATIONS USING OPENFOAM - INDUSTRIAL PERSPECTIVE (GH Kim)

17:00 - 17:30 **Coffee-Break**

17:30 - 18:30 **Poster Session**

18:30 - 19:30 **Wine Tasting**

Tuesday, June 28th

	Course Track 1 (Room GA)	Course Track 2 (Room PA)	Course Track 3 (Room S1)	Course Track 4 (Room S2)	Course Track 5 (Room S3)	Course Track 6 (Room S4)
08:30 - 10:00	Rotating machinery in FOAM-extend Håkan Nilsson (Lecture)	Using OpenFOAM fluid structure interaction library Željko Tuković (Hands-On)	Erosion modeling in OpenFOAM Alejandro Lopez (Lecture)	Introduction to OpenQBMM and quadrature-based moment methods Alberto Passalacqua (Lecture)	snappyHexMesh Theory and Application Andrew Jackson (Hands-On)	cfMesh Tessa Uroić (Hands-On)
10:00 - 10:30	Coffee-Break					
10:30 - 12:00	Pressure-velocity coupling in solvers Hrvoje Jasak (N/A)	Introduction to the programming language of OpenFOAM® Vuko Vukčević (Hands-On)	PyFoam for the lazy Bernhard Gschaider (Lecture)	New IHFOAM developments Javier L. Lara (Lecture)	Introduction to meshing with blockMesh Vanja Škurić (Hands-On)	Practical CFD applications using HELYX-OS Paolo Geremia (Hands-On)
12:00 - 13:30	Lunch					
13:30 - 15:00	Advanced dynamic mesh motion Gianluca Montenegro (Lecture)	Introduction to PyFoam and swak4Foam Bernhard Gschaider (Hands-On)	OpenFOAM® software bundles by CFDsupport Jakub Benda (Lecture)	Introduction to simulating real 3d flows: the DrivAer case Gavin Tabor (N/A)	Understanding and prototyping fvOptions Jens Höpken (Hands-On)	Introduction to solid mechanics with OpenFOAM Philip Cardiff (Hands-On)
15:00 - 16:30	Simulations with particles, using the Lagrangian method (Lecture) Alejandro Lopez	Extending Boundary Conditions at Runtime Tomislav Maric (Hands-On)	Design and Rationale of High Resolution Schemes in OpenFOAM Holger Marschall (Lecture)	Understanding and extending scalarTransportFoam Henrik Rusche (N/A)	Implementation of turbulence models Luiz Fernando. L. R. Silva (Hands-On)	Introduction to post-processing with ParaView Philip Cardiff (Hands-On)
16:30 - 17:00	Coffee-Break					
17:00 - 18:30	Introduction to numerical optimization using DAKOTA and OpenFOAM® Joel Guerrero (N/A)	Implementation of simple FSI model with functionObject I. Marchevsky (Hands-On)	Using EPIC to run OpenFOAM® online Mike Turner (Hands-On) <u>Internet Room</u>		Implementation of acoustic analogy Iliia Evdokimov (Hands-On)	Learning how to use free surface flows in OpenFOAM 3.0 Victoria Korchagova (Hands-On)

More details - <http://www.openfoamworkshop.org/courses>

Wednesday, June 29th

Plenary Lectures						
8:30 - 9:15	CONTRIBUTING A PERSPECTIVE ON ONE OPEN-SOURCE AND COMMUNITY CONTRIBUTOR: WYLDCAAT (Bruno Santos, blueCAPE Lda)					
9:15 - 10:00	GROW YOUR OWN CFD BUSINESS (Robin Knowles, CFD Engine)					
Fluid-Structure Interaction II		General CFD III		Pre-processing, Post-processing, Meshing and User Environments II	Complex Materials	Aerodynamics I
(Room PA)		(Room S1)		(Room S2)	(Room S3)	(Room S4)
10:10 - 10:30	ADDED MASS PARTITIONED FLUID-STRUCTURE INTERACTION SOLVER BASED ON ROBIN BOUNDARY CONDITION FOR PRESSURE (Z Tuković, M Bukac, H Jaskak, A Ivanković)	FURTHER DEVELOPMENTS ON THE GEOMETRIC IMMERSSED BOUNDARIES (GIB) (G Karpouzias, Ede Villiers)	VISUAL STORYTELLING AND DATA VISUALIZATION IN NUMERICAL SIMULATIONS (J Guerrero, G Bailardi, H Kifle)	FLUID DYNAMIC AND THERMAL MODELING OF THE INJECTION MOLDING PROCESS IN OPENFOAM* (J Nagy, E Kobler, G Steinbichler)	COMBINING AN OPENFOAM-BASED ADJOINT SOLVER WITH RBF MORPHING FOR SHAPE OPTIMIZATION PROBLEMS ON THE RBF4AERO PLATFORM (E Papoutsis Kiachagias, K Giannakoglou, S Porziani, C Groth, ME Biancinli, E Costa)	
10:30 - 10:50	THE DEVELOPMENT AND APPLICATION OF A MOORING LINE MODEL FRAMEWORK FOR CFD ANALYSIS (D Combest)	QUADROTOR CYCLOGYRO AIRCRAFT IN FORWARD FLIGHT CFD MODEL (L Gagnon, G Quaranta, M Schwaiger, D Wills)	SCRIPTING AS AN APPROACH TO AUTOMATED CFD SIMULATION FOR PACKED BED CATALYTIC REACTOR MODELLING (J Fernengel, F Habla, O Hinrichsen)	A SURROGATE MODEL TO BALANCE THE FLOW DISTRIBUTION IN COMPLEX PROFILE EXTRUSION DIES (A Rajkumar, L Ferrás, C Fernandes, OS Carneiro, M Becker, JM Nóbrega)	MHD SUPERSONIC FLOW CONTROL SIMULATION IN OPENFOAM (A Rykhovskiy, A Schmidt)	
10:50 - 11:10	SIMULATION OF THE FLOW AROUND AN ELASTIC SQUARE CYLINDER (E Tangermann, M Klein)	MULTIPHASE VOF SIMULATION OF GASOLINE INJECTORS WITH TOPOLOGICALLY CHANGING GRIDS (F Piscaglia, A Montorfano, F Giussani, J Hélie, SM Aithal)	INTRODUCING THE NEW VERSION OF THE OPEN SOURCE GULI HELYX-OS (P Geremia, S Valeri, D Cian)		WIND TURBINE DIFFUSER AERODYNAMIC STUDY WITH OPENFOAM (FS Palmer, A Figueroa, A Sanz-Andres, S Pindado)	
11:10 - 11:40	Coffee-Break					
Chemistry & Reacting Flows		General CFD IV		Pre-processing, Post-processing, Meshing and User Environments III	Nuclear	Aerodynamics II
(Room PA)		(Room S1)		(Room S2)	(Room S3)	(Room S4)
11:40 - 12:00	REACTING POROUS MEDIA - SIMULATION OF THERMAL CONVERSION OF WOOD (K Kwiatkowski, PJ Zuk)	USE OF OPENFOAM* FOR INVESTIGATION OF MIXING TIME IN AGITATED VESSELS WITH IMMERSSED HELICAL COILS (A Stefan, J Volkmer, HJ Schultz)	INTRODUCING A NEW CLIENT-SERVER FRAMEWORK FOR LARGE CFD MODELS (A Paroni, P Geremia, S Valeri)	GEN-FOAM: AN OPENFOAM* BASED MULTI-PHYSICS SOLVER FOR NUCLEAR REACTOR ANALYSIS (C Fiorina)	INVESTIGATION OF ICE SHAPE CHARACTERISTICS FOR LOW-SPEED HIGH ALTITUDE LONG ENDURANCE AIRCRAFT IN ICING CONDITIONS (C Son, K Yee)	
12:00 - 12:20	SIMULATING POLYURETHANE FOAMS USING THE MODENA MULTI-SCALE SIMULATION FRAMEWORK (H Rusche, M Karimi, P Ferkl)	DEVELOPMENT OF CUSTOMIZED INDOOR AIR SIMULATOR USING OPEN SOURCE LIBRARIES (I Sohn, H Roh, J Kim)	A GENERIC APP GUI FOR OPENFOAM* AND VARIANTS (J Pappe, S Geller)	ONE- AND TWO-PHASE COUPLING OF OPENFOAM WITH THE THERMAL HYDRAULIC CODE ATHLET FOR NUCLEAR SAFETY ANALYSES (J Herb, F Chiriac)	CHARACTERIZATION OF SUPERSONIC INTAKE FOR SPIN-STABILIZED FLIGHT VEHICLES ALONG A BALLISTIC TRAJECTORY USING CFD (A Steenkamp, M Combrinck)	
12:20 - 12:40	DETAILED HOMOGENEOUS AND HETEROGENEOUS KINETICS IN OPENFOAM (A Cucci, M Maestri)	MICRO-SCALE CFD MODELING OF TIGHT ROCKS (I Verri, AD Torre, G Montenegro)	AN UPDATE ON THE INTEGRATION OF ADIOS INTO OPENFOAM FOR HANDLING DISK I/O (K Meredith, A Heather, N Podhorszki)	DEVELOPMENT AND IMPLEMENTATION OF A NEW HIGH ORDER TURBULENCE MODEL IN OPENFOAM FOR LIQUID FUEL NUCLEAR REACTORS (MT Retamales, P Rubiolo, O Doche)		
12:40 - 14:00	Lunch					
Plenary Lectures						
14:00 - 14:15	Feature Presentation - Gcompute					
14:15 - 15:00	Open Source CFD Methodology, Research & Industrial Applications (Torbjörn Larsson, Creo Dynamics)					
Heat and Mass Transfer I		Turbomachinery		Disperse Multiphase Flows II	Multiphase Flows I	Naval Hydrodynamics / Coastal / Offshore II
(Room PA)		(Room S1)		(Room S2)	(Room S3)	(Room S4)
15:10 - 15:30	HEAT TRANSFER SIMULATIONS FOR A 3D PRINTED HEAT EXCHANGER (R Kahrman, G Tabor)	HIGH SPEED MICRO TURBINE FOR SPECTROSCOPY APPLICATION (N Herzog, D Wilhelm, A Puresa, F Engelke)	LES MODELING OF LIQUID ATOMIZATION IN OPENFOAM USING A SURFACE DENSITY FUNCTION (N Hecht, J Anez Perdomo, J Reveillon, FX Demoulin)	SOLVING NUMERICAL STABILITY PROBLEMS IN MULTIPHASE FLOWS WITH LARGE INTERPHASE HEAT TRANSFER (JL Favero, GGS Ferreira, LFLR Silva, PLC Lage)	NEAR-WAKE KINEMATICS OF A SURFACE PIERCING CYLINDER AT SUPERCRITICAL REYNOLDS NUMBERS AND LOW KEULEGAN-CARPENTER NUMBERS (A Edesess, D Kelliher, A Borthwick, G Thomas)	
15:30 - 15:50	A FULLY IMPLICIT DISCRETIZATION OF THE DIFFUSION OPERATOR IN OPENFOAM (M Darwish, F Moukalled, L Mangani)	HARMONIC BALANCE METHOD FOR TURBOMACHINERY APPLICATIONS (G Cvjetič, H Jaskak)	MODELING SUPERQUADRATIC PARTICLES IN CFD-DEM USING A HYBRID FICTITIOUS DOMAIN-IMMERSSED BOUNDARY METHOD (A Podilozhnyuk, F Muncichi, C Goniva)	AN IMPLICIT SECOND-ORDER REGION COUPLING METHOD FOR DISCONTINUOUS VALUES AND TRANSPORT COEFFICIENTS (P Weber, S Silge, H Marschall, D Bothe)	EVALUATING POWER TAKE-OFF CONTROL ALGORITHMS FOR WAVE ENERGY CONVERTERS WITH AN OPENFOAM NUMERICAL WAVE TANK (J Davidsen)	
15:50 - 16:10	HEAT TRANSFER ANALYSIS OF SLUG FLOW IN MICROCHANNELS WITH INTERFACE CAPTURING METHOD (K Matsuda, K Endoh)	CFD ANALYSIS OF NON-NEWTONIAN FLUID PROCESSING PUMP (N Casari, N Aldi, M Pinelli, C Buratto, A Suman)	DRAG MODEL FOR COUPLED CFD-DEM SIMULATIONS OF NON-SPHERICAL PARTICLES (R Lohse, U Palzer)	TWO-WAY COUPLED EULER-EULER SIMULATION OF DRIFTING SNOW (Z Boutanos, H Jaskak)	VALIDATION OF SEAKEEPING CFD SIMULATIONS IN HEAD AND OBLIQUE WAVES USING THE NAVAL HYDRO PACK (I Gatlin, V Vukčević, H Jaskak)	
16:10 - 16:30	IMPLEMENTATION AND VALIDATION OF CONJUGATE HEAT TRANSFER AND SURFACE RADIATIVE HEAT TRANSFER USING P1 THERMAL RADIATION MODEL (C Cintolesi, H Nilsson, A Petronio, V Armenia)	ENHANCED TURBOMACHINERY CAPABILITIES FOR OPENFOAM: DEVELOPMENT AND VALIDATION (ID Dominics)	SIMULATION OF MOVING-BED AND FLUIDIZED-BED REACTORS BY DPM AND MPPIC IN OPENFOAM (K Jang, W Han, K Huh)	DIRECT NUMERICAL SIMULATION OF FLUID INTERFACES INFLUENCED BY SOLUBLE SURFACTANT (C Pesci, P Weber, H Marschall, D Bothe)	CFD ANALYSIS AND OPTIMISATION OF TIDAL TURBINE ARRAYS USING OPENFOAM (G Tabor)	
16:30 - 17:00	Coffee-Break					
Heat and Mass Transfer II		Phase Change	Automotive/Solid Mechanics	Multiphase Flows II		
(Room PA)		(Room S1)	(Room S2)	(Room S3)		(Room S4)
17:00 - 17:20	A NEW REGION-COUPLED FRAMEWORK FOR CONJUGATE HEAT TRANSFER (O Oxtoby, E Villiers, S Georgescu)	EXTENSIBLE VOLUME-OF-FLUID SOLVER FOR PHASE-CHANGE HEAT TRANSFER (A Rattner, M Nabil)	A HYBRID SEMI IMPLICIT SOLVER USING REAL-GAS THERMODYNAMICS APPLICABLE TO A WIDE RANGE OF MACH NUMBERS (M Banholzer, M Pfizner)	SIMULATION OF LIQUID METAL BATTERIES (N Weber, P Beckstein, V Galindo, W Herremann, S Landgraf, C Nore)		Naval Hydro Pack Demonstration Session 16:30 - 18:30
17:20 - 17:40	CFD CHARACTERISATION OF PRESSURE DROP AND HEAT TRANSFER INSIDE GYROID LATTICE STRUCTURES (E Meyers, D Bacheva, G Tabor, R Kahrman)	SIMULATION OF PARTICLE FOULING AND ITS INFLUENCE ON FRICTION LOSS AND HEAT TRANSFER ON STRUCTURED SURFACES USING PHASE CHANGING MECHANISM (R Kasper, J Turnow, N Kornev)	MICRO-SCALE AND FULL-SCALE CFD SIMULATION OF AFTER-TREATMENT DEVICES FOR INTERNAL COMBUSTION ENGINES (G Montenegro, A Torre, A Onorati)	AROUND-CASTING SIMULATION WITH OPENFOAM*: VERIFICATION AND APPLICATION OF MODELS (A Vakhruшев, M Wu, A Ludwig, Y Tang, G Nitzl, G Hackl)		
17:40 - 18:00	A FLAMELET GENERATED MANIFOLD MODEL FOR PARTIALLY PREMIXED LAMINAR FLAMES (A Cubero, C Montañés, N Fueyo)	VERIFICATION OF SOLIDIFICATION/MELTING SOURCE FV OPTIONS FOR THE ISOTHERMAL SOLIDIFICATION (M Torabi Rad)	PERFORMANCE OF LAGRANGIAN FINITE VOLUME APPROACHES FOR LINEAR AND NONLINEAR SOLID MECHANICS ANALYSES (P Cardiff)	DEVELOPMENT OF A SUB-GRID MODEL FOR SELF-AERATION (P Lopes, J Leandro, RF Carvalho, G Tabor)		
18:00 - 18:20	NUMERICAL SIMULATION OF FLAME ACCELERATION AND TRANSITION FROM DEFLAGRATION TO DETONATION USING OPENFOAM (R Khodadadizadboni, J Wen, A Heidari, S Muppala, C Wang)		SIMULATION OF THE PLASTIC DEFORMATION OF CONTACT PADS DURING MICROELECTRONIC TESTING (D Dickinson, M Schmaithmann)	APPLICATION OF HYBRID KT/PISO SCHEME FOR DIFFERENT COMPRESSIBLE FLOWS (M Kraposhin, S Strizhak)		
19:30 - 23:00	Banquet					

Thursday, June 30th

Plenary Lecture						
08:30 - 09:00	The Custodians of OpenFOAM® (Fred Mendonca, ESI-OpenCFD Global Operations)					
	Track 1 (Room TBA)	Track 2 (Room TBA)	Track 3 (Room TBA)	Track 4 (Room TBA)	Track 5 (Room TBA)	Track 6 (Room TBA)
09:00 - 10:30	Clinics Sessions					HELYX® Open Seminar 9:00 - 12:00
10:30 - 11:00	Coffee-Break					
11:00 - 12:30	Clinics Sessions					
12:30 - 14:00	Lunch					
14:00 - 15:30	Birds-of-a-Feather - Meetings					GOMPUTE Open Seminar 14:00 - 15:00
15:30 - 16:00	Coffee-Break					
16:00 - 17:30	Special Interest Groups - Meetings					
17:30 - 18:00	Closing Session					

Clinics

In this particular session, questions/doubts about OpenFOAM® Technology will be answered/clarified by a group of experts.

All the OFW11 attendees will have the chance to ask questions about OpenFOAM® Technology, which will be forwarded to a group of experts.

On the community day, the answers will be given in parallel sessions, in a similar organization to the training sessions.

The OFW11 Clinics Sessions contents will be announced in advance to allow the attendance of anyone interested.

Register at the 11th OpenFOAM® Workshop. You'll be contacted soon to place your questions/doubts.

Current list of OpenFOAM® Technology experts available for OFW11 Clinics:

- **Andrew Jackson** - Engys Ltd.
- **Bernhard Gschaider** - HFD Research GmbH
- **Bruno Santos** - blueCAPE Lda
- **Håkan Nilsson** - Chalmers University of Technology
- **Hrvoje Jasak** - Wikki/University of Zagreb
- **Jens Höpken** - Sourceflux UG
- **Joel Guerrero** - University of Genoa
- **Luiz Fernando L. R. Silva** - Federal University of Rio de Janeiro
- **Paolo Geremia** - Engys Ltd.
- **Philip Cardiff** - University College Dublin
- **Tomislav Maric** - Sourceflux UG
- **Željko Tuković** - University of Zagreb

Birds-of-a-Feather (BoF):

BoF sessions are informal meetings where the attendees group together, based on a shared interest, and carry out discussions without any pre-planned agenda.

Examples: Turbulence Modeling, Immersed Boundary, Meshing, Code Contribution

Special interest groups (SIG):

Informal group meetings to discuss a shared interest in a specific area of knowledge, learning or technology where members cooperate to effect or to produce solutions within their particular field.

Examples: Wind Energy, Ship Hydro, Combustion, Turbomachinery, Documentation Project

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