

# The 13th OpenFOAM Workshop, June 24-29, 2018, Shanghai, China

## Tentative Program

### June 25 (Monday)

08:30-09:00	<b>Opening Ceremony</b> (RUTH MULAN CHU CHAO BUILDING, Room A200) <b>Chair: Prof. Decheng Wan, SJTU, China</b>
09:00-10:00	<b>Plenary Session I</b> (Room A200) <b>Chair: Prof. Decheng Wan, SJTU, China</b>
09:00-10:00	Keynote Lecture 1: <b>OpenFOAM: A Year in Review</b> , by Prof. Hrvoje Jasak, Wikki, UK, University of Zagreb, Croatia
10:00-10:30	Coffee Break and Group Photograph
10:30-12:30	<b>Plenary Session II</b> (Room A200) <b>Chair: Prof. Håkan Nilsson, Chalmers University of Technology, Sweden</b>
10:30-11:30	Keynote Lecture 2: <b>Advanced CFD for Optimal Hydraulic Turbine Component Design</b> , by Prof. Francois Guibault, Ecole Polytechnique de Montreal, Canada
11:30-12:30	Keynote Lecture 3: <b>Progress of naoe-FOAM-SJTU Solver for Marine Hydrodynamics</b> , by Dr. Jianhua Wang, SJTU, China
12:30-14:00	<b>Lunch and Poster Sessions</b>

### Training Sessions (RUTH MULAN CHU CHAO BUILDING)

14:00-16:30	Training Session 1-1 (Room A200)	Training Session 1-2 (Room A1008)	Training Session 1-3 (Room A1006)	Training Session 1-4 (Room A206)	Training Session 1-5 (Room A211)
14:00-15:15	Rotating machinery training (Håkan Nilsson, Chalmers University of Technology, Sweden)	Open-source CFD for Enterprise: Presentation about HELYX v3 (Francisco Campos, Engys Ltd, United Kingdom)	Iterative linear solvers (Tessa Uroić, Faculty of Mechanical Engineering and Naval Architecture, Croatia)	ParaView: Basics for first user (Mathieu Westphal, Kitware, France)	Introduction to PyFoam and swak4Foam (Bernhard Gschaider, HFD Research GmbH, Austria)
15:15-16:30	Overset Mesh library in foam-extend-4.1 (Vuko Vukcevic, Wikki Ltd., Croatia)	Open-source CFD for Enterprise: Live HELYX tutorial demo (Francisco Campos, Engys Ltd, United Kingdom)	Simulation procedures for advancing ships (Jianhua Wang, Shanghai Jiao Tong University, China)	ParaView: Advanced Features (Mathieu Westphal, Kitware, France)	Advanced PyFoam-Training (Bernhard Gschaider, HFD Research GmbH, Austria)
16:30-16:50	Coffee break				
16:50-18:05	Training Session 2-1 (Room A200)	Training Session 2-2 (Room A1008)	Training Session 2-3 (Room A1006)	Training Session 2-4 (Room A206)	Training Session 2-5 (Room A211)
16:50-18:05	Five Basic Classes in OpenFOAM (Hrvoje Jasak, University of Zagreb, Croatia)	The basic case setup: pre/post-processing of flow past a cylinder (Jiawei He, Shanghai Jiao Tong University, China)	A Detailed Look at fvSchemes and fvSolution (Gavin Tabor, CEMPS, University of Exeter, United Kingdom)	The Implement of Turbulence Model: k-w SST and Its Derivation (Cong Liu, Shanghai Jiao Tong University, China)	RANS Turbulence Modeling in OpenFOAM (Weiwen Zhao, Shanghai Jiao Tong University, China)
18:30-20:00	Dinner (Learning Center – Shanghai Aircraft Customer Service Co., Ltd.)				

### June 26 (Tuesday)

#### Parallel Session I (RUTH MULAN CHU CHAO BUILDING)

08:30-10:10	Session 1-1 (Room A200)	Session 1-2 (Room A1008)	Session 1-3 (Room A1006)	Session 1-4 (Room A206)	Session 1-5 (Room A211)
08:30-10:10	Naval Hydrodynamics / Coastal / Offshore (I) <b>Chair:</b> Dr. Ganbo Deng, Ecole Centrale de Nantes	Aerodynamics / Civil Engineering (I) <b>Chair:</b> Prof. Jun Zhang, Beihang University	Fluid-Structure Interaction (I) <b>Chair:</b> Dr. Philip Cardiff, University College Dublin	General CFD (I) <b>Chair:</b> Mr. Bernhard Gschaider, HFD Research GmbH	Compressible Flows <b>Chair:</b> Mr. Heehak Ahn, Nextfoam Co. Ltd
08:30-08:50	<b>Numerical Analysis on the Reflection Coefficient of a Curtain Breakwater Using OpenFOAM(OFW13-13-008)</b> Sheng-Qiang Yin, Xin-Yu Wang, Yong Liu	<b>Enhancing Computational Aero-Acoustic Processes for Ground Vehicles Using Scale Resolving Open Source CFD (OFW13-1-007)</b> Torbjörn Larsson, Johan Hammar, Jing Gong, Michaela Barth, Lilit Axner	<b>Numerical Simulation of Overtopping of Sloping Breakwater Under Irregular Wave(OFW13-7-009)</b> Jingyuan Li, Qinghe Zhang	<b>Development of a Coupled Incompressible Viscoelastic Fluid Flow Solver Based on Foam-Extend(OFW13-2-040)</b> C. Fernandes, V. Vukčević, T. Uroić, O.S. Carneiro, H. Jasak, J.M. Nóbrega	<b>Numerical Modeling of a Single Cavitation Bubble Near the Solid Wall with a Coupled Level Set and Volume of Fluid Method(OFW13-5-003)</b> Jianyong Yin, Yongxue Zhang, Yuning Zhang
08:50-09:10	<b>Comparison of Wave Generation Methods for Two-Phase VOF Solvers(OFW13-13-081)</b> Zhaobin Li, Ganbo Deng, Patrick Queutey, Benjamin Bouscasse, Guillaume Ducrozet, Lionel Gentaz, David Le Touz' E, Pierre Ferrant	<b>Wake Map of Flapping Airfoil and DMD Analysis(OFW13-1-021)</b> Hongyu Zheng, Fangfang Xie, Yao Zheng	<b>Simulation of the Hydroelastic Response of a Floating Ice Sheet(OFW13-7-029)</b> Luofeng Huang, Minghao Li, Zejko Tukovic, Giles Thomas	<b>New OpenFOAM Solvers for Transonic and Incompressible Flow Simulations(OFW13-10-024)</b> Matvey V. Kraposhin, Daniil A. Ryazanov, Kirill A. Vatutin, Tatiana G. Elizarovaz	<b>High-Performance Implementation of Matrix-Free Runge-Kutta Discontinuous Galerkin Method for Euler Equations Based on HopeFOAM(OFW13-5-056)</b> Liyang Xu, Yongquan Feng, Shuai Ye, Yanzhang Chen, Yunrui Guo, Xiaoguang Ren, Xinhai Xu
09:10-09:30	<b>Study on Reflection and Transmission Coefficients of Comb-Type Caisson Breakwater (OFW13-13-013)</b> Xin-Yu Wang, Yong Liu	<b>Coupled Aero-Hydrodynamic Simulations of Two Floating Offshore Wind Turbines(OFW13-1-070)</b> Yang Huang, Ping Cheng, Decheng Wan	<b>Towards the Modeling of Fluid-Structure Interactive Lost Core Deformation In High-Pressure Die Casting(OFW13-7-030)</b> Sebastian Kohlstadt, Michael Vynnycky, Jan Jackel, Ludger Lohre	<b>VLES of Drag Reduction for a Square Cylinder with Shaped Corner Based on OpenFOAM(OFW13-10-035)</b> Zhongyu Cheng, Zhaoyang Xia, Xingsi Han, Junkui Mao, Feng Jin	<b>Simulation of Bubble Expansion and Collapse Between a Free Surface and a Rigid Wall(OFW13-5-096)</b> Meng Yi, Zhang Duo

09:30-09:50	<b>CFD Simulation of Tidal Current Farm by Using AL Model(OFW13-13-016)</b>	<b>A Computational Fluid Dynamics Study of Street-Level Ventilation in Urban Areas(OFW13-3-028)</b>	<b>Control of Cylinder Wake Using a flexible filament(OFW13-7-034)</b>	<b>A CFD-PBE Solver for Bubble Columns Operating at High Pressure(OFW13-10-036)</b>	<b>The OpenFOAM Calculation of Subsonic-Supersonic Shear Mixing Layer (OFW13-5-099)</b>
	Cheng Liu, Changhong Hu	Chun-Ho Liu, Wai-Chi Cheng, Wenye Li, Ziwei Mo, Zhangquan Wu, Lilian Y.L. Chan, W.K. Kwan, Hing Tuen Yau	Fangfang Xie, Jian Deng	Qian Li, Yanli Qu, Muhammad Tamoor, Jingcai Cheng, Chao Yang, Zai-Sha Mao	Liu Yang, Fu Ben-shuai
09:50-10:10	<b>Survivability Simulation of a Wave Energy Converter in a Numerical Wave Tank(OFW13-13-017)</b>	<b>Towards Fire Dynamics Simulation in HELYX(OFW13-3-039)</b>	<b>A Numerical Framework for Solidification and Residual Stress Modelling in Metallurgical Applications(OFW13-7-047)</b>	<b>A practical method for hydrodynamic coefficient calculation with OpenFOAM(OFW13-10-104)</b>	<b>Improved Pressure-Velocity Coupled Algorithm for Compressible Flow(OFW13-1-121)</b>
	Brecht Devolder, Peter Troch, Pieter Rauwoens	Daniel Deising, Salvatore Renda, Eugene De Villiers	Hrvoje Jasak, Sebastian, Kohlstaedt, Michael Vynnycky	Ji Zhao, Renchuan Zhu, Yang Cao	Taewoo Kim, Jaeheung Gill, Jaeryul Shin
10:10-10:40	Coffee Break				

**Parallel Session II (RUTH MULAN CHU CHAO BUILDING)**

10:40-12:00	<b>Session 2-1 (Room A200)</b> Naval Hydrodynamics / Coastal / Offshore(II)	<b>Session 2-2 (Room A1008)</b> Aerodynamics / Civil Engineering (II)	<b>Session 2-3 (Room A1006)</b> Fluid-Structure Interaction (II)	<b>Session 2-4 (Room A206)</b> General CFD (II)	<b>Session 2-5 (Room A211)</b> Phase Change
	<b>Chair:</b> Prof. Changhong Hu, Kyushu University	<b>Chair:</b> Dr. Wei Zhang, MARIC	<b>Chair:</b> Prof. Joongcheol Paik, Gangneung-Wonju National University	<b>Chair:</b> Prof. Håkan Nilsson, Chalmers University of Technology	<b>Chair:</b> Prof. Zhenhua Huang, University of Hawaii at Manoa
10:40-11:00	<b>Numerical Simulation of Cavitating Flows Considering the Fluid Compressibility in OpenFOAM(OFW13-13-043)</b>	<b>Detached-Eddy Simulations of Atmospheric Flow over Complex Terrains(OFW13-3-044)</b>	<b>Numerical Study of Vortex-Induced Motions of a Buoyancy Can in Currents(OFW13-7-067)</b>	<b>Immersed Boundary Surface Method in Foam-Extend(OFW13-10-046)</b>	<b>A Numerical Study of Cavitating Flows around a Hydrofoil Using Overset Meshes(OFW13-16-131)</b>
	Changchang Wang, Guoyu Wang, Biao Huang	Guolei Wang, Pankaj Jha, Gregory Oxley	Xie Kangdi, Zhao Weiwen, Wan Decheng	Hrvoje Jasak	Dezhi Dai, Albert Y. Tong
11:00-11:20	<b>Numerical Simulation of Wave Propagation over a Sloping Beach Using a Coupled RANS-NLSWE Model(OFW13-13-048)</b>	<b>Verification of OpenFOAM to Simulate Tangential Vortex Intake for Civil Engineering Application(OFW13-3-049)</b>	<b>Development of an Arbitrary Lagrangian-Eulerian Finite Volume Method for Metal Forming Simulation in OpenFOAM(OFW13-7-079)</b>	<b>A 3D Numerical Study on Tadpole Swimming(OFW13-10-077)</b>	<b>OpenFOAM Simulations of Isothermal Phase-Change in the Absence and Presence of Shrinkage(OFW13-16-112)</b>
	Ine Vandebek, Erik Toorman, Peter Troch	Lau Yau Fu, Eddy	Philip Cardiff, Zeljko Tukovic, Alojz Ivankovic, Peter De Jaeger	Li Tingting, Hu Wenrong	T. Yamamoto, R. Hellmuth, J. Zhang, M. Torabi Rad
11:20-11:40	<b>The Naval Hydro Pack: Current Status and Challenges(OFW13-13-054)</b>	<b>Upper Bound Limit Analysis of the Uplift Bearing Capacity of Suction Caisson Foundation based on Reverse Prandtl Mechanism(OFW13-3-084)</b>	<b>Analysis of Flow-Induced Vibration of Nuclear Steam Generator U-Tubes Using OpenFOAM(OFW13-14-052)</b>	<b>AFEPack Solver Construction Based on OpenFOAM (OFW13-25-031)</b>	<b>Mesh Topology Modification Method for Solving Multi-Region Coupling Problems with Phase Change(OFW13-16-053)</b>
	Vuko Vukcevic, Inno Gatin, Hrvoje Jasak	Wenbo Zhu, Guoliang Dai, Weiming Gong, Xueliang Zhao	Xiao Ye, Run Du, Xiaoyu Zhang And Pingdi Ren	Cao Yuan, Yao Chengbao, Su Junwei	Xudong Na, Zhixun Xia, Likun Ma, Xiaoting Yan
11:40-12:00	<b>CFD Simulation of Vortex Ring Formation for Low Speed Impulsive Propulsion(OFW13-13-065)</b>	<b>Comparison of the Strong- and the Weak-Imposition Approach for Boundary Condition Treatments in Density-Based Solvers(OFW13-1-136)</b>	<b>Numerical Investigations on Vortex-Induced Vibration of a Flexible Cylinder Experiencing Combined Flow(OFW13-13-080)</b>	<b>Numerical Simulations of Electrical Double Layer and Electroosmotic Flow in a Nanopore by OpenFOAM (OFW13-25-037)</b>	<b>A Pressure-Based Solver for Compressible Three-Phase Flow with Phase Change(OFW13-25-025)</b>
	Xiaosong Zhang, Decheng Wan	Yidao Dong, Xiang Gao, Min Xiong, Guangxue Wang	Di Deng, Zhe Wang, Decheng Wan	Jie Li, Jian Ye, Dilin Chen, Li Xu	Bingsheng Ye, Yiwei Wang, Chenguang Huang, Jian Huang
12:00-13:30	Lunch and Poster Sessions				

**Parallel Session III (RUTH MULAN CHU CHAO BUILDING)**

13:30-14:30	<b>Session 3-1 (Room A200)</b> Multiphase Flows (I)	<b>Session 3-2 (Room A1008)</b> Fluid-Structure Interaction (III)	<b>Session 3-3 (Room A1006)</b> General CFD (III)	<b>Session 3-4 (Room A206)</b> Heat Transfer	<b>Session 3-5 (Room A211)</b>
	<b>Chair:</b> Prof. Jinbao Wang, MARIC	<b>Chair:</b> Prof. Jiasong Wang, SJTU	<b>Chair:</b> Prof. Hrvoje Jasak, Wikki LTD	<b>Chair:</b> Prof. J. Miguel Nóbrega, University of Minho	
13:30-13:50	<b>A Two-Phase Model for Saturated Granular-Water Inclined Flows(OFW13-6-020)</b>	<b>Wave and Current Interaction with Moored Floating Bodies Using Overset Method(OFW13-7-107)</b>	<b>Simulations for some Low and Medium Reynolds Number Problems using immersed boundary method in Foam-extend (OFW13-10-089)</b>	<b>Development and Assessment of a Numerical Modelling Code for the Thermoplastic Profile Extrusion Cooling Stage(OFW13-11-085)</b>	
	Pengfei Si, Xiping Yu	Javier L. Lara, B. Di Paolo, G. Barajas, Inigo J. Losada	Dong Zhang, JianZhen Zhao, Guang Pan, Liming Chao	O.S. Carneiro, A. Rajkumar, C. Fernandes, L.L. Ferrás, F. Habla, J.M. Nóbrega	

13:50-14:10	<b>Numerical Simulation of Bubble Dynamics near the Free Surface(OFW13-8-014)</b>	<b>Simulation of Fluid-Structure Interaction in Biomechanics Using FOAM-Extend(OFW13-7-123)</b>	<b>Investigation of Rain Effects on NACA0012 Airfoil with OpenFOAM ( OFW13-10-091 )</b>	<b>Numerical study of the turbulent slot jet impingement heat transfer using the modified SST k-<math>\omega</math> model based on OpenFOAM(OFW13-11-108)</b>	
	Tong Li, Shiping Wang, A-Man Zhang	Hua-Dong Yao, Håkan Nilsson, Mats Svensson, Håkan Roos	Ningyu Liu, Xiang Zhao, Jiangyan Shao, Chang Shu	Huakun Huang, Guiyong Zhang, Zhi Zong	
14:10-14:30	<b>Quantitative Benchmark of a Single Rising Bubble Using VOF Methods(OFW13-8-015)</b>	<b>Numerical Simulation of Wave Run-Up of a Submersible Platform Using OpenFOAM(OFW13-7-134)</b>	<b>Implementation of Advanced Plasticity Models In Openfoam ( OFW13-25-093 )</b>	<b>Ripple Formation and Whole-Process Modelling of Selective Laser Melting(OFW13-11-005)</b>	
	Lionel Gamet, Johan Roenby, Marco Scala, Hamza Zehara	Yang Lin, Liao Kang Ping, Ma Qing Wei	Michael Clancy, Philip Cardiff, Peter De Jaeger, Alojz IvankoviC	Zekun Wang, Khuram Walayat, Moubin Liu	
14:30-15:00	Coffee Break				

**Parallel Session IV (RUTH MULAN CHU CHAO BUILDING)**

	<b>Session 4-1 (Room A200)</b>	<b>Session 4-2 (Room A1008)</b>	<b>Session 4-3 (Room A1006)</b>	<b>Session 4-4 (Room A206)</b>	<b>Session 4-5 (Room A211)</b>
15:00-16:00	Multiphase Flows (II)	Fluid-Structure Interaction (IV)	General CFD (IV)	Reacting Flows	
	<b>Chair:</b> Dr. Lionel Gamet, IFP Energies Nouvelles	<b>Chair:</b> Dr. Chenliang Zhang, MARIC	<b>Chair:</b> Dr. Célio Fernandes, University of Minho	<b>Chair:</b> Prof. Francois Guibault, Ecole Polytechnique de Montreal	
15:00-15:20	<b>Wetting Phenomena with ALE Interface Tracking(OFW13-8-038)</b>	<b>Fluid-Structure Interaction of Inflatable Wing Section(OFW13-7-128)</b>	<b>An Immersed Boundary Wall Function for Smooth Wall Shear Stress(OFW13-24-027)</b>	<b>Simulation of Combustion and Charged Particle Transport under DC Electric Field(OFW13-20-105)</b>	
	Dirk Grunding, Dieter Bothe, Holger Marschall	M. A. M. Folkersma, P. Thedens, R. Schmehl	Xiaofeng Liu, Yuncheng Xu	Yeongdo Park, Kang Y. Huh	
15:20-15:40	<b>A High Fidelity Wave Maker based on Multi-Moment Finite Volume Formulation and THINC Method(OFW13-8-100)</b>	<b>Numerical Simulation of Vortex-Induced Vibration for a Real Size Drilling Riser System with Auxiliary Lines(OFW13-13-078)</b>	<b>LES and Actuator Line Method for Modeling the Tidal Power Plant Deep Green, Using OpenFOAM(OFW13-10-127)</b>	<b>Detailed Transport and Performance Optimization for Massively Parallel Simulations of Turbulent Combustion with OpenFOAM(OFW13-20-041)</b>	
	Zhihang Zhang, Xizeng Zhao, Bin Xie	Tengteng Kong, Wenbo Wu, Jiasong Wang	Sam T. Fredriksson, Göran Broström, Björn Bergqvist, Johan Lennblad, Håkan Nilsson	Thorsten Zirwes, Feichi Zhang, Jordan A. Denev, Peter Habisreuther Henning Bockhorn, Dimosthenis Trimis	
15:40-16:00	<b>Two-Way Coupled Euler-Euler Simulations of Particle-Laden Flows(OFW13-6-118)</b>	<b>The Hysteresis Phenomenon between Force and Motion in Vortex-Induced Motion of Semi-Submersible Platform(OFW13-26-066)</b>	<b>Parallel Load Balancing Capabilities in Foam-Extend(OFW13-10-140)</b>	<b>Analysis of Standing and Traveling Tangential Wave in a LOX/Kerosene Liquid Rocket Engine based on OpenFOAM(OFW13-20-143)</b>	
	Ziad Boutanios, Hrvoje Jasak	Siming Li, Weiwen Zhao, Decheng Wan	Henrik Rusche, Hrvoje Jasak	Guo Kang-Kang, Nie Wan-Sheng, Liu Yu, Chen Peng, Shi Tian-Yi	
18:30-21:00	Workshop Banquet				

June 27 (Wednesday)

**Plenary Session III** (RUTH MULAN CHU CHAO BUILDING)

08:30-10:30	<b>Plenary Session III (Room A200) Chair: Prof. Hrvoje Jasak, Wikki, UK, University of Zagreb, Croatia</b>
08:30-09:30	Keynote Lecture 4: <b>Optimisation and Machine Learning with OpenFOAM</b> , by Prof. Gavin Tabor, University of Exeter, UK
09:30-10:30	Keynote Lecture 5: <b>HopeFOAM: High Order Parallel Extensible CFD Software</b> , by Prof. Xinhai Xu, National University of Defense Technology, China
10:30-11:00	Coffee Break

**Plenary Session IV** (RUTH MULAN CHU CHAO BUILDING)

11:00-12:00	<b>Plenary Session IV (Room A200) Chair: Prof. Guoxiang Dong, Shanghai Key Laboratory of Ship Engineering (SKLSE), China</b>
11:00-11:15	Sponsor Presentation 1: Engys Ltd, OpenFOAM® as a Development Tool: Making Open-source CFD Solutions for Enterprise
11:15-11:30	Sponsor Presentation 2: CalcNext, Ms. Ling Zou, Director, An Introduction to CyberSim
11:30-11:45	Sponsor Presentation 3: SKLSE, Prof. Sheming Fan, Ship Maneuverability Research at MARIC
11:45-12:00	Sponsor Presentation 4: SKLNST, Mr. Yunlong Du, R&D of marine technology of SSSRI Model Basin
12:00-13:30	Lunch and Poster Sessions

**Parallel Session V** (RUTH MULAN CHU CHAO BUILDING)

	Session 5-1 (Room A1008)	Session 5-2 (Room A1006)	Session 5-3 (Room A200)	Session 5-4 (Room A206)	Session 5-5 (Room A209)
13:30-15:10	Multiphase Flows (III)  <b>Chair:</b> <b>Prof. Yuxiang Ma, Dalian University of Technology</b>	Turbulence Modelling  <b>Chair:</b> <b>Dr. Eike Tangermann, Universität der Bundeswehr München</b>	Naval Hydrodynamics / Coastal / Offshore (III)  <b>Chair:</b> <b>Prof. Dongqiang Lu, JHD</b>	Pre-Processing / Post-Processing / Meshing / User Environments  <b>Chair:</b> <b>Mr. Westphal Mathieu, Kitware</b>	
13:30-13:50	<b>Deciding Optimal Parameter for Internal Wavemaker Using Coupling of Dakota and OpenFOAM(OFW13-8-120)</b>  Woong-Hyoun Lee, Sang-Ho Oh, Sang Don Lee	<b>Wall-Modelled Large-Eddy Simulation of the Flow over a Backward-Facing Step(OFW13-24-109)</b>  Timofey Mukha, Saleh Rezaeiravesh, Mattias Liefvendahl	<b>Preliminary Comparison between OpenFOAM and Non-Hydrostatic Model for Wave-Structure Interaction(OFW13-13-086)</b>  Yuxiang Ma, Congfang Ai, Guohai Dong	<b>Development of New Function Object for Sloshing Impact Assessment(OFW13-19-045)</b>  Wooyoung Jeon, Seongjin Song, Sunho Park	
13:50-14:10	<b>Numerical Investigation of Turbulence Models for Simulation of a Gas-Liquid Stirred Tank(OFW13-6-138)</b>  Yefei Liu	<b>Numerical Simulation of Sajben Diffuser with a Turbulence Model(OFW13-24-129)</b>  Gao Lin	<b>CFD Simulation of an Integration System of Oscillating Buoy Wec with a Fixed Box-Type Breakwater(OFW13-13-110)</b>  Yanjun Mao, Yong Cheng, Gangjun Zhai	<b>HELIX-OS V3, The Next-Generation GUI for Openfoam®(OFW13-19-055)</b>  Paolo Geremia, Stefano Valeri, Davide Ciani	
14:10-14:30	<b>Development of a Multiphase Solver for Cavitation Flow near Free Surface(OFW13-8-137)</b>  Houcun Zhou, Min Xiang, Shiwei Zhao, Weihua Zhang	<b>Implementation and Validation of a Method to Introduce Synthetic Turbulence by Volume Forces(OFW13-24-026)</b>  Eike Tangermann, Markus Klein	<b>An OpenFOAM-Based Two-Phase Flow Model for Simulating Three-Dimensional Oscillating-Water-Column Devices: Model Verification and Validation(OFW13-13-117)</b>  Conghao Xu, Zhenhua Huang	<b>Coupling OpenFOAM with Fenics for Multiphysics Simulation(OFW13-19-119)</b>  Qingfeng Xia, David Gillespie	
14:30-14:50	<b>Developments the 'ESPER' for Estimating Ship Performance(OFW13-8-141)</b>  Hyun-Sik Kim, Kwang-Leol Jeong, Jae-Heung Gill	<b>Fine Tuning of the SST - Transition Turbulence Model Using Historical Data Sets(OFW13-24-050)</b>  Timofey Mukha, Saleh Rezaeiravesh, Mattias Liefvendahl	<b>Analysis of Hydrodynamic Performance of a Ship with Propeller Using OpenFOAM(OFW13-13-018)</b>  Zhai Shucheng, Zheng Chaosheng, Liu Dengcheng	<b>A Parallel Multi-Selection Greedy Method for the RBF Mesh Deformation in OpenFOAM(OFW13-19-002)</b>  Chao Li, Xiaowei Guo, Chengkun Wu, Xiang Zhang, Yi Liu, Lihuan Yuan, Sijiang Fan, Canqun Yang	
14:50-15:10	<b>Numerical Investigation of Air Bubbles Evolution and Coalesce From Submerged Orifices Based on OpenFOAM(OFW13-6-019)</b>  Feng Pan, Ying He, Li-Zhong Mu	<b>Implementation of VLES Turbulence Modelling in OpenFOAM for Separated Flow Simulation(OFW13-24-032)</b>  Zhaoyang Xia, Zhongyu Cheng, Xingsi Han, Junkui Mao	<b>A Numerical Sloshing Analysis for Assessment of LNG Fuel Tank Using OpenFOAM(OFW13-13-125)</b>  Hotak Ok, Jiwon Choi, Kwangmin Lee, Jinho Yang	<b>A Pre-Processing Utility for Coupling WRF and OpenFOAM(OFW13-19-124)</b>  Jiahui Li, Xi Zhang, Ying Zhong, Ningning Wu	
15:10-15:40	Coffee Break				

**Parallel Session VI** (RUTH MULAN CHU CHAO BUILDING)

	<b>Session 6-1</b> (Room A1008)	<b>Session 6-2</b> (Room A1006)	<b>Session 6-3</b> (Room A200)	<b>Session 6-4</b> (Room A206)	<b>Session 6-5</b> (Room A209)
15:40-17:00	Sprays and Injection <b>Chair:</b> Dr. Vuko Vukčević, Wikki Ltd.	Porous Media <b>Chair:</b> Dr. Romain Guibert, INP Toulouse	Optimization and Control <b>Chair:</b> Prof. Gavin Tabor, University of Exeter	Turbomachinery/Complex Materials <b>Chair:</b> Dr. Lu Zou, SJTU	
15:40-16:00	<b>Resolving the Near-Field Flow Patterns of an Idealized Fire Sprinkler with VOF Modeling and Adaptive Mesh Refinement(OFW13-21-111)</b>  Karl V. Meredith, Vuko Vukčević	<b>Multi-Species Transport and pH Modeling in Porous Media(OFW13-17-057)</b>  Romain Guibert, Pierre Horgue, Torsten Clemens, Gerald Debenest	<b>Draft-Tube Inlet Velocity Profile Optimization(OFW13-15-060)</b>  Xin Lin Li, Fran, Cois Guibault, Christophe Devals	<b>LES of Transients in the Francis-99 Water Turbine Model(OFW13-23-126)</b>  Jonathan Fahlbeck, Ludvig Uppström, Eric Lillberg, Håkan Nilsson	
16:00-16:20	<b>Large Eddy Simulation of Evaporating Sprays under Diesel-like Conditions(OFW13-21-097)</b>  Ruitian He, Tie Li, Yumeng Gu	<b>Numerical Wave Flume for the Study of Scour Protection around Offshore Monopile Foundations under Currents Loading(OFW13-17-074)</b>  Carlos Emilio Arboleda Chavez, Peter Troch, Vasiliki Stratigaki	<b>Industrial Optimisation with Multiobjective Bayesian Methods and OpenFOAM(OFW13-15-083)</b>  G.R. Tabor, S.J.Daniels, A.A.M. Rahat, J.E. Fieldsend, R.M. Everson, S.Grossberg, D.Jarman	<b>CFD for Turbomachinery: Methods and Applications(OFW13-23-073)</b>  Hrvoje Jasak, Gregor Cvijetic, Tessa Uroic, Luka Culic	
16:20-16:40	<b>Modeling Diesel Engine Combustion Using Flamelet/Progress Variable Based on OpenFOAM(OFW13-21-023)</b>  Qiyang Zhou, Yong Qian, Likun Ma, Jin Xia, Xingcai Lu	<b>Recent Developments of the PorousMultiphaseFoam Toolbox(OFW13-17-058)</b>  Pierre Horgue, Romain Guibert, Jacques Franc, Gerald Debenest	<b>POD-DEIM Based Model Order Reduction for Speed-Up of Flow Parametric Studies(OFW13-15-051)</b>  Martin Isoz	<b>Systematic Simulation Combining CFD and 1-D Drive System of High-Viscosity Fluid Dispensing Jet in Micro-Electronics Packaging(OFW13-4-135)</b>  Run Du, Yongjie Zhou, Xiao Ye	
16:40-17:00	<b>Numerical Study of Cavitating Flows Around A Hydrofoil(OFW13-16-106)</b>  Dezhi Dai, Albert Y. Tong		<b>An Optimized Chebyshev Smoother in Gamg Solver of OpenFOAM on Sunway TaihuLight Supercomputer(OFW13-25-133)</b>  Hanfeng Gu, Hu Ren, Changxi Liu, Wei Xue, Xin Liu	<b>Verification of Immersed Boundary Method and Numerical Simulation of Newtonian Fluid in Microchannels by OpenFOAM(OFW13-25-116)</b>  Di-Lin Chen, Jian Ye, Li Xu, Xin Kang, Yi Zhou, Jie Li	
18:30-20:00	Dinner (Learning Center – Shanghai Aircraft Customer Service Co., Ltd.)				

June 28 (Thursday)

Mini-Symposium (RUTH MULAN CHU CHAO BUILDING)

	MS 1-1 (Room A1008)	MS 1-2 (Room A1006)	MS 1-3 (Room A206)	MS 1-4 (Room A211)	MS 1-1 (Room A109)
08:30-10:35	Numerical Tank for Ship and Offshore Platforms Prof. Wenyang Duan	Paraview 5.5: Features Quick-Peek Westphal Mathieu	Performance of Ship and Offshore Structures Cong Liu	Floating Offshore Wind Turbines Yang Huang	OpenFOAM on China's Home-grown Supercomputers James Lin
08:30-08:55	<b>A One-Way Coupling Strategy of the Green-Naghdi Equations and the OpenFOAM(OFW13-8-115)</b> W.Y. Duan, K. Zheng, B.B. Zhao, J.T. Xie	ParaView 5.5 just released in april 2018. Kitware and the ParaView open source community are proud to present some of the new features that have been recently integrated. Statistics tools to analyze density based on OpenTURNS, huge improvements to the PointGaussian representation, Multi Component volume rendering, Embossing representation, Rock Cluster analysis, Dynamic Streamlines representation...	<b>Numerical Simulations of VIV of a Flexible Cylinder with Varying Axial Tensions(OFW13-26-075)</b> Zhe Wang, Di Deng, Decheng Wan	<b>Application of Static Loading Tests to Steel Pipe Piles with Large Diameters in China Offshore Wind Farms(OFW13-13-122)</b> Xiaojuan Li, Guoliang Dai, Weiming Gong, Mingxing Zhu	China's home-grown supercomputers dominate the world supercomputing powers. For instance, Sunway Taihulight, the current world TOP1 supercomputer, has the computing power equaling up to 35% of the sum of all supercomputers in the US. However, These China's supercomputers adopt non-x86 processors, which prevents existing applications developed on Intel x86 CPU from running on these supercomputers. Therefore, one of the most critical challenges to China's supercomputers is to build a rich software ecosystem by porting and optimizing widely-used applications, such as OpenFOAM. In this mini-symposium, we discuss the programming challenges and approaches of porting and Proposal for Mini-Symposium of Community Day optimizing OpenFOAM on China's home-grown supercomputers.
08:55-09:20	<b>Implementation of Overset Grid in OpenFOAM and its Validation to PMM Model Test of a Container Ship(OFW13-13-113)</b> Chenliang Zhang, Xiaojian Liu, Sheming Fan, Decheng Wan, Jinbao Wang		<b>Hull Form Optimization of JBC Based on Resistance and Propulsion Performances</b> Liu Xinwang, Decheng Wan	<b>Aerodynamic and Hydrodynamic of a New SPAR Floating Wind Turbine with Heave Plates(OFW13-13-076)</b> Yinbo Sun, Peilin Dou	
09:20-09:45	<b>Numerical Simulation of Hull Pressure Fluctuation Induced by Propeller Cavitation Using OpenFOAM(OFW13-13-010)</b> Chaosheng Zheng, Dengcheng Liu, Zhirong Zhang		<b>Effects of Water Depth on Stopping Maneuver Using CFD Numerical Simulation(OFW13-13-068)</b> Chenguang Sun, Jianhua Wang, Decheng Wan	<b>Numerical Validation of Wake Interaction between Two Offset Model Wind Turbines Based on Actuator Line Model(OFW13-10-062)</b> Xinze Duan, Ping Cheng Decheng Wan	
09:45-10:10	<b>Numerical Simulation on Evolution of Bow Wave of KCS in Motion(OFW13-13-082)</b> Zhen Ren, Decheng Wan		<b>Numerical Simulation of Added Resistance in Heading and Oblique Waves Using OpenFOAM(OFW13-13-130)</b> Zhan Junhua, Kuang Xiaofeng	<b>Development of a Fully Coupled Aero-Hydro-Mooring-Elastic Tool for Floating Offshore Wind Turbines(OFW13-13-098)</b> Yuanchuan Liu, Qing Xiao	
10:10-10:35	<b>Numerical Study on Breaking and Non-breaking Wave Impact Loads on a Vertical Circular Cylinder</b> Zhenghao Liu, Chengliang Zhang, Di Wang, Decheng Wan		<b>Study on Sloshing Coupled Motion of a FLNG Section in Waves Using Whole-Flow-Field CFD Method(OFW13-13-061)</b> Qi Li, Yuan Zhuang, Decheng Wan	<b>Impact of Dynamic Subgrid Scale Modeling in DDES Simulation of Massively Separated Flows(OFW13-26-064)</b> Di Wu, Weiwen Zhao, Decheng Wan	
10:35-11:00	Coffee Break				
11:00-11:45	<b>Closing Ceremony</b> (RUTH MULAN CHU CHAO BUILDING, A200)				
12:00-13:30	Lunch				
13:30-15:30	Technical Tour to Shanghai Jiao Tong University				
18:00-19:30	Dinner (Learning Center – Shanghai Aircraft Customer Service Co., Ltd.)				