

Naval Hydro Workshop

(28-29 January 2019, Zagreb, Croatia)

Workshop Program

Day 1 (Monday 28th of January)

09:00 - 09:50 Registration

09:50 - 10:00 Workshop Opening (Professor Hrvoje Jasak)

10:00 - 10:40 Offshore wind turbines

10:00 - 10:20 FloatStep: CFD for floating offshore wind turbines, Johan Roenby (Stroming)

10:20 - 10:40 CFD simulations of the OO-star offshore wind turbine floater using OpenFOAM, Hamid Sarlak Chivae (Technical University of Denmark)

10:40 - 11:05 Coffee Break

11:05 - 12:25 Ship Propulsion and Resistance

11:05 - 11:25 OpenFoam at Piening Propeller, Sebastian Sturm (Otto Piening GmbH)

11:25 - 11:45 Predicting contra-rotating propeller characteristics using CFD, Gregor Cvijetic (FMENA)

11:45 - 12:05 A shipyard perspective on the prediction of added resistance in waves using CFD, Andrea Mikelic (DAMEN Schelde Naval Shipbuilding)

12:05 - 12:25 Analysis of ship propulsion characteristics using CFD, Andro Bakica (FMENA)

12:25 - 13:55 Lunch

13:55 - 15:15 Numerical Modelling: Advances and Challenges

13:55 - 14:15 Naval Hydro Pack: Present and Future Outlook, Vuko Vukcevic (FMENA)

14:15 - 14:35 Modelling challenges within the direct calculation approach for design of marine and offshore structures, Šime Malenica (Bureau Veritas)

14:35 - 14:55 TEBEM based potential flow Numerical Tank, Duan Wenyang (Harbin Engineering University)

14:55 - 15:15 Advances in Dynamic Mesh Modelling in foam-extend: Overset and Immersed Boundary, Inno Gatin (FMENA)

15:15 - 15:40 Coffee Break

15:40 - 17:00 Hydro-Structure Interaction in Waves I

15:40 - 16:00 A Numerical Method based on Fixed Cartesian Grids for Wave-Body Interaction Simulation, Liao Kangping (Harbin Engineering University)

16:00 - 16:20 Simulations of Planing Hull in Regular Waves using the Naval Hydro Pack, Riccardo Pigazzini, Thomas Puzzer (University of Trieste)

16:20 - 16:40 Zhirong Zhang, Chaosheng Zheng (China Ship Scientific Research Center)

16:40 - 17:00 Spectral Wave Explicit Navier-Stokes Equations method for wave-structure interaction in a two-phase Finite Volume Framework, Benjamin Bouscasse, Young Jun Kim (Ecole Centrale Nantes)

18:00 Workshop Dinner

Day 2 (Tuesday 29th of January)

08:40 - 10:20 Hydro-Structure Interaction in Waves II

08:40 - 09:00 Modelling Wave-Structure-Seabed Interaction, Hisham Elsafti (Leichtweiss-Institute, TU Braunschweig)

09:00 - 09:20 A Methodology for Hydro-Structure Simulations Based on OpenFOAM, Charles Monroy (Bureau Veritas)

09:20 - 09:40 Hydroelasticity of large ships - practical applications, Nikola Vladimir (FMENA)

09:40 - 10:00 Experimental analysis of vertical bending moment in extreme waves, Benjamin Bouscasse, Young Jun Kim (Ecole Centrale Nantes)

10:00 - 10:20 Seakeeping in the Marco Polo project, Šime Malenica, Vedran Žanić (Bureau Veritas, FMENA)

10:20 - 10:45 Coffee Break

10:45 - 12:25 Wave Modelling and Dynamic Stability

10:45 - 11:05 On the strongly nonlinear High Level Green-Naghdi wave models, Zhao Binbin (Harbin Engineering University)

11:05 - 11:25 Towards a direct assessment of Surf riding within 2nd Generation Intact Stability Criteria, Ermina Begovic (University of Naples Federico II)

11:25 - 11:45 Influence of interface treatment in wave propagation in CFD, Benjamin Bouscasse, Young Jun Kim (Ecole Centrale Nantes)

11:45 - 12:05 Ship roll control and energy harvesting using a U-tube anti-roll tank, Neven Alujevic (FMENA)

12:05 - 12:25 Breaking Wave Impacts with Compressibility Effects, Inno Gatin (FMENA)

12:25 - 13:55 Lunch

13:55 - 14:15 Workshop closing

14:15 - 15:45 Special Interest Groups