

30th International Workshop on Water Waves and Floating Bodies
Bristol, UK: 12th-15th April 2015



Technical Programme

SUNDAY APRIL 12TH, 2015

10:00 – 12:00 **Registration (Hotel Lobby)**

Use your voucher for free entry to the SS Great Britain (the voucher is valid from Sunday-Wednesday and the opening times are 10:00am to 5:30pm every day, last entry at 4:30pm. It can only be used once.)

12:30 – 13:40 **Lunch (M-Shed)**

13:40 – 13:50 Welcome and Opening Remarks

SESSION 1 CHAIR: J. GRUE

13:50 – 14:10 The interaction of a waves with a Submerged Very Large Elastic Plate (p.89) Hermans, A.J.

14:10 – 14:30 Amplification of waves by submerged plates (p.153) Newman, J.N.

14:30 – 14:50 Hydroelastic response of a floating thin plate due to a surface-piercing load (p.129) Lu, D.Q.

14:50 – 15:10 Hydro-elastoplastic analysis of floating plates in waves (p.229) Yoon, J.-S. & Lee. P.-S.

15:10 – 15:35 **Coffee break**

SESSION 2 CHAIR: J.N. NEWMAN

15:35 – 15:55 Validation of a nonlinear spectral model for water waves over a variable bathymetry (p.73) Gouin, M., Ducrozet, G. & Ferrant, P.

15:55 – 16:15 Extended Mild-Slope Equations for Compressible Fluids (p.177) Renzi, E., Cecioni, C., Bellotti, G., Sammarco, P. & Dias, F.

16:15 – 16:35 An extended multi-modal expansion for propagation of waves in a channel of non-uniform width (p.9) Biggs, N.R.T.

16:35 – 16:55 Total transmission through narrow gaps in channels (p.61) Evans, D.V. & Porter, R.

16:55 – 17:20 **Coffee break**

SESSION 3 CHAIR: R. EATOCK-TAYLOR

17:20 – 17:40 A note on convergence of expansion formulae for wave-structure interaction problems (p.137) Mandal, S., Sahoo, T. & Chakrabarti, A.

17:40 – 18:00 The Sign of the Added Mass Coefficients for 2-D Structures (p.145) McIver, M. & McIver, P.

18:00 – 18:20 Hydrodynamic Interaction of Two Bodies in Waves (p.169) Peng, H., Ashim Ali, Md. & Qiu, W.

19:00 – 19:30 **Welcome drinks reception (Hotel)**

19:30 **Dinner (Hotel)**

MONDAY APRIL 13TH, 2015

SESSION 4	CHAIR: R. BECK	
08:30 – 08:50	A numerical study on prediction of ship maneuvering in waves (p.245)	Zhang, W. & Zou, Z.
08:50 – 09:10	A linearized free-surface RANS method for unsteady ship maneuvering problems (p.217)	Woolliscroft, M.O. & Maki, K.J.
09:10 – 09:30	Study on a Semi-Analytic Approach for Analysis of Parametric Roll in Regular and Irregular Head Seas (p.121)	Lee, J.-H., Kim, Y. & Song, K.-H.
09:30 – 09:50	Long-period waves and current variations in a port due to a passing vessel (p.173)	Pinkster, J. & van der Hout, A.
09:50 – 10:10	Ship waves at finite depth in the presence of uniform vorticity (p.57)	Ellingsen, S.A. & Li, Y.
10:10 – 10:35	Coffee break	
SESSION 5	CHAIR: W. DUAN	
10:35 – 10:55	Strongly nonlinear evaluation of internal ship wakes (p.77)	Grue, J.
10:55 – 11:15	Wave-interference and wave-breaking effects on the Kelvin wakes of high-speed monohull ships and catamarans (p.253)	Zhu, Y., He, J., Zhang, C., Wei, L., Wan, D. & Noblesse, F.
11:15 – 11:35	Fully Nonlinear Computations of Wave Radiation Forces and Hydrodynamic Coefficients for a Ship with a Forward Speed (p.241)	Zhang, X. & Beck, R.F.
11:35 – 11:55	Added Resistance Simulation of Blunt Ship in Short Waves (p.37)	Chen, J. & Duan, W.
11:55 – 12:15	A high-order finite-difference linear seakeeping solver tool for calculation of added resistance in waves (p.1)	Afshar, M.A., Bingham, H.B. & Read, R.
12:15 – 13:25	Lunch	
SESSION 6	CHAIR: Y. KIM	
13:25 – 13:45	Singularization of Sloshing Impacts (p.97)	Karimi, M.R., Brosset, L., Ghidaglia, J.-M. & Kaminski, M.L.
13:45 – 14:05	Liquid sloshing and impact in a closed container with high filling (p.237)	Zekri, H.J., Korobkin, A.A. & Cooker, M.J.
14:05 – 14:25	Some aspects of the eigenfrequency computation in a two-dimensional tank filled with two non miscible fluids (p.189)	Scolan, Y.-M.
14:25 – 14:45	Numerical and experimental modelling of cylindrical tuned liquid dampers (p.149)	Molin, B., Remy, F., Bonnici, J. & Laccaze, J.-B.
14:45 – 15:10	Coffee break	
SESSION 7	CHAIR: A. KOROBKIN	
15:10 – 15:30	Second-order hydroelastic behavior of a flexible circular plate in monochromatic waves (p.81)	Han, S.Y., Malenica, S., Kim, B.J., Kim, Y.J. & Kwon, S.H.
15:30 – 15:50	Localisation in water wave and thin plate problems (p.181)	Rupprecht, S., Peter, M.A., Bennetts, L.G. & Chung, H.
15:50 – 16:10	Modelling Water Wave Overwash of a Sea Ice Floe (p.201)	Skene, D., Bennetts, L., Meylan, M.H., Toffoli, A. & Monty, J.
16:10 – 16:30	Wave Radiation by a Cylinder Submerged in Water with an Ice Floe or a Polynya (p.205)	Sturova, I.V. & Tkacheva, L.A.
16:30 – 16:55	Coffee break	
SESSION 8	CHAIR: M. KASHIWAGI	
16:55 – 17:15	On Stokes' Coefficients and the Wave Resistance of a Towed Body(p.133)	Maklakov, D.V. & Petrov, A.G.
17:15 – 17:35	Double Doppler shift theory on water waves generated by a translating and oscillating source (p.233)	Yuan, Z.-M, Incecik, A., Day, A. & Jia, L.
17:35 – 17:55	Non-linear problem on unsteady free surface flow forced by submerged cylinder (p.113)	Kostikov, V.K. & Makarenko, N.I.
18:00 – 19:00	IWWF Steering Committee Meeting (M-Shed)	
19:30	Dinner (Hotel)	

TUESDAY APRIL 14TH, 2015

SESSION 9	CHAIR: H. BINGHAM	
08:30 – 08:50	Particle-In-Cell Numerical Solver for Free Surface Flows with Fluid-Solid Interactions (p.41)	Chen, Q., Zang, J., Kelly, D.M., Williams, C.J.K. & Dimakopoulos, A.
08:50 – 09:10	A Time-Domain Twice Expansion Method for Wave Interaction with a Body of Large Amplitude Motion (p.209)	Teng, B. & Jin, R.
09:10 – 09:30	Inertia forces on conductor arrays in a jacket model in regular waves (p.185)	Santo, H., Taylor, P.H. & Day, A.H.
09:30 – 09:50	Forces on vertical cylinders due to steep asymmetric and breaking waves based on the Froude Krylov approximation x2 (p.125)	Lind, R.J. & Stansby, P.K.
09:50 – 10:10	Forced heaving motion of a floating air-filled bag (p.29)	Chaplin, J., Farley, F., Kurniawan, A., Greaves, D. & Hamm, M.
10:10 – 10:35	Coffee break	
SESSION 10	CHAIR: M. McIVER	
10:35 – 10:55	Wave Forces On A Vertical Cylinder With Non-Circular Cross Section (p.53)	Disibuyuk, N.B. & Korobkin, A.A.
10:55 – 11:15	Experimental observation of near-motion-trapped mode (p.213)	Wolgamot H., Taylor, P.H., Eatock Taylor, R., Fitzgerald, C.J., van den Bremer, T., Whittaker, C. & Raby, A. Martin, P.A.
11:15 – 11:35	Scattering by rings of vertical cylinders (p.141)	Kashiwagi, M., Iida, T. & Miki, M.
11:35 – 11:55	Wave Drift Force on Floating Bodies of Cloaking Configuration and Associated Wave Patterns (p.101)	
11:55 – 12:15	When no axisymmetric modes are trapped by a freely floating moonpool (p.117)	Kuznetsov, N.
12:15 – 13:25	Lunch	
SESSION 11	CHAIR: F. NOBLESSE	
13:25 – 13:45	A comparative study of the GN-3 and Boussinesq equations for nonlinear wave propagation (p.249)	Zhao, B.B., Duan, W.Y., Ertekin, R.C., Demirbilek, Z. & Webster, W.C.
13:45 – 14:05	Fully nonlinear and dispersive nearshore wave modeling: accuracy and efficiency of two methods of solving the potential flow problem (p.225)	Yates, M.L., Benoit, M. & Raoult, C.
14:05 – 14:25	Lagrangian numerical wave-current flume (p.25)	Buldakov, E., Stagonas, D. & Simons, R.
14:25 – 14:45	On the modeling of nonlinear wave-wave and wave-body interactions in a realistic sea state (p.5)	Bai, W., Feng, X., Chen, X. & Ang, K.K.
14:45 – 15:10	Coffee break	
SESSION 12	CHAIR: B. MOLIN	
15:10 – 15:30	Experimental study of water-oil-boom interaction and failure events (p.21)	Borri, D., Lugni, C., Greco, M. & Faltinsen, O.M.
15:30 – 15:50	Experimental demonstration of Epsilon-Near-Zero water waves focusing (p.17)	Bobinski, T. Eddi, A., Maurel, A., Pagneux, V. & Petitjeans, P.
15:50 – 16:10	A new linearization method for vectorial Morison equation (p.165)	Ouled Housseine, C., Monroy, C. & Bigot, F.
16:10 – 16:30	Performance of "Salter's Cam" in 3-DOF Motion and in a Viscous Fluid (p.93)	Jiang, Y. & Yeung, R.W.
16:30 – 16:55	Coffee break	
SESSION 13	CHAIR: R. YEUNG	
16:55 – 17:15	A fully submerged flap-type wave energy converter (p.161)	Noad, I.F. & Porter, R.
17:15 – 17:35	Linearized potential flow analysis of a 40 chamber, oscillating water column wave energy device (p.13)	Bingham, H.B. & Read, R.
17:35 – 17:55	Optimising power take-offs for maximizing wave energy conversions (p.197)	Sheng, W., Alcorn, R. & Lewis, A.
17:15 – 18:15	Interaction distance for scattered and radiated waves in large wave energy parks (p.69)	Göteman, M., Engström, J., Eriksson, M. & Isberg, J.
19:15 – 19:45	Drinks Reception (Hotel)	
19:45	Banquet Dinner (Hotel)	

WEDNESDAY APRIL 15TH, 2015

SESSION 14	CHAIR: O. FALTINSEN	
08:30 – 08:50	Numerical Simulation of Breaking Wave Impact on a Vertical Wall (p.65)	Gao F., Zang, J. & Blenkinsopp, C.
08:50 – 09:10	Two-dimensional breaking wave impact on a vertical wall (p.33)	Chatjigeorgiou, I.K., Korobkin, A.A. & Cooker, M.J.
09:10 – 09:30	Oblique water entry of a wedge with vortex shedding (p.221)	Xu, G.D. & Wu, G.X.
09:30 – 09:50	Towards Efficient Generalized Wagner Solvers for Slamming in Oblique Seas (p.85)	Helmers, J.B. & Sun, H.
09:50 – 10:10	Hydrodynamic impact on an erodible body (p.193)	Semenov, Y.A. & Wu, G.X.
10:10 – 10:35	Coffee break	
SESSION 15	CHAIR: D. GREAVES	
10:35 – 10:55	A linearized exit model for prediction of forces on a body within the 2D+T framework (p.105)	Khabakhpasheva, T.I., Korobkin, A.A. & Maki, K.J.
10:55 – 11:15	Bursting of a high pressure bubble through a free surface (p.157)	Ni, B.
11:15 – 11:35	Dispersion relation and instability onset of Faraday waves (p.45)	Clamond, D. & Rajchenbach, J.
11:35 – 11:55	Energy dissipation and spectrum evolution during the breaking of modulated wave trains (p.49)	De Vita, F., Verzicco, R. & Iafrati, A.
11:55 – 12:15	Experimental description of long time evolution of Akhmediev breathers (p.109)	Kimmoun, O., Chabchoub, A., Branger, H., Hsu, H.C., Chen, Y.Y., Kharif, C. & Li, M.S.
12:15 – 12:25	Closing Remarks	
12:25 – 13:35	Lunch	