

MULTIPHASE 2019: October 14-18, 2019 - Université Mohamed VI Polytechnique - Benguerir, Morocco

Symposium on Sloshing and wave Impacts

Monday 14th			
09:00 - 09:30		Univ. Mohamed VI Polytechnique (Morocco)	Welcome, presentation of UM6P and opening
Session 1: Global flow, Anti-sloshing devices, Ship and liquid cargo coupling - Chairman: Pr. Frédéric Dias (University College Dublin, Ireland)			
09:30 - 10:00	S. Abadie, B. Larroque	Université de Pau et Pays de l'Adour (France)	Simulation and measurements of flip-through impact in wet dam breaking
10:00 - 10:30	Y.-M. Scolan, L. Brosset	ENSTA-Bretagne, GTT (France)	Some aspects of the free surface flow around a non smooth wall
10:30 - 11:00	Q. Luo, G. Wang	China Classification Society (China)	Study on coupling effect of tank sloshing and ship motion based on hybrid time-domain method
11:00 - 11:30			Coffee break
Session 2: Liquid and Gas Compressibility - Chairman: Pr. Bettar Ould el Moctar (University of Duisburg-Essen, Germany)			
11:30 - 12:00	Y. Vautrin, S. Etienne, C. Béguin, D. Pelletier, L. Brosset	Polytechnique Montréal (Canada), GTT (France)	Introduction of compressibility in a two-phase front-tracking finite element solver
12:00 - 12:30	S. Benjelloun, J.M. Ghidaglia	Univ. Mohamed VI Polytechnique (Morocco), ENS Paris-Saclay (France)	On the Speed of Sound in two-Phase Fluid Flows
12:30 - 13:00	I. Gatin, V. Vukcevic, L. Diebold, S. Malenica	Univ. of Zagreb (Croatia), Bureau veritas (France)	Sloshing Application of a Finite Volume Method Accounting for Compressibility Effects in the Gas Phase
13:00 - 14:00			Buffet lunch
Session 3: Theoretical models - Chairman: Dr. Hannes Bogaert (MARIN, The Netherlands)			
14:00 - 14:30	Y. Jus, N. Couty, L. Brosset	Bureau veritas Solutions, GTT (France)	Analytical models for the prediction of the hydrodynamic loads on a wall due to a liquid impact
14:30 - 15:00	D. van der Meer, A. Gauthier, U. Jain, D. Lohse	Univ. of Twente (The Netherlands)	A scaling-law approach to liquid impact
15:00 - 15:30			Coffee break
Session 4: Loads on structures, Flow energy - Chairman: Pr. Stéphane Abadie (University of Pau and Pays de l'Adour, France)			
15:30 - 16:00	O. Kimmoun, G. Dupont	Ecole Centrale Marseille (France)	Evaluation of Morison formula for non-impacting wave loads on a vertical cylinder
16:00 - 16:30	J. Neugebauer, M. Thome, O. el Moctar	University of Duisburg-Essen (Germany)	Assessment of Impact Loads on LNG Pump Towers
16:30 - 17:00	E. Dias, J. Hertzerich, R. Cox	University College Dublin, Williams College (Ireland), ENS Paris-Saclay (France)	Storm waves and coastal hazards: Understanding near-shore wave events through studies of boulder transport
Tuesday 15th			
Session 5: Experimental techniques - Chairman: Pr. Olivier Kimmoun (Ecole Centrale Marseille, France)			
09:30 - 10:00	V. Novakovic, J.J. Costas Brea	TU Delft, MARIN (The Netherlands)	Mastering breaking waves at the new MARIN facility
10:00 - 10:30	Y. Atik, M. Bonnissel, L. Gostiaux	GTT, Ecole Centrale Lyon (France)	Experimental study of the Rollover Phenomenon in LNG tanks on floating structures
Session 6: Phase change - Chairman: Pr. Devaraj van der Meer (University of Twente, The Netherlands)			
10:30 - 11:00	G.M. Jeon, J.C. Park, Y.B. Lee, S.W. Lee, D.S. Kim	Pusan National Univ., DSME (South Korea)	CFD estimation of BOG in a LNG tank under loading and transporting condition
11:00 - 11:30			Coffee break
11:30 - 12:00	P. Behruz	Ariane Group (Germany)	Predicting Phase Change in Cryogenic Tanks during Sloshing with CFD
12:00 - 12:30	R. de Böck, A.S. Tijsseling, B. Koren	Eindhoven Univ. of Technology (The Netherlands)	Numerically simulating two-fluid wave impacts including phase change
12:30 - 13:00	A. Peters, O. el Moctar	Univ. of Duisburg - Essen, Ocean Engineering and Transport Systems (Germany)	Hybrid Euler-Lagrange Cavitation Modelling and Prediction of Cavitation Damage
13:00 - 14:00			Buffet lunch
Session 7: Free surface instabilities and behaviour of bubbles - Part1 - Chairman: Pr. Stéphane Etienne (PolytechniqueMontréal, Québec - Canada)			
14:00 - 14:30	U. Jain, D. Lohse, D. van der Meer	Univ. of Twente (The Netherlands)	Role of Kelvin-Helmholtz instability before water impact of a flat disk
14:30 - 15:00	B.J. Gréa, L. Gostiaux, A. Briard	CEA DAM, Univ. de Lyon, Univ. Paris-Saclay (France)	Faraday instability in Miscible Fluids
15:00 - 15:30	R. Remmerswaal, A.E.P. Veldman	University of Groningen (The Netherlands)	Numerical Modeling of Contact Discontinuities in Two-Phase Flow
15:30 - 16:00			Coffee break
Session 8: Free surface instabilities and behaviour of bubbles - Part2 - Chairman: Pr. Louis Gostiaux (Ecole Centrale Lyon, France)			
16:00 - 16:30	S. Etienne, C. Béguin, D. Pelletier, L. Brosset	Polytechnique Montréal (Canada), GTT (France)	Instability
16:30 - 17:00	S. Fortin, S. Etienne, C. Béguin, D. Pelletier, L. Bornard, D. Scott	Polytechnique Montréal, General Electrics (Canada)	A 3D front tracking method for the study of ellipsoidal bubble bistability
17:00 - 17:30	S. Zoghlamj, C. Béguin, S. Etienne, A. Teyssedou, D. Scott, L. Bornard	Polytechnique Montréal, GE Renewable Energy (Canada)	Effect of added mass on the dispersion of small bubbles
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Symposium on Environmental flows			
Wednesday 16th			
Session 9: Multiphase CFD - Chairman: Dr. Saad BENJELLOUN (UM6P, Morocco)			
09:00 - 09:30	Z. Ghoudi, F. Benkhaldoun	UM6P, U. Paris 13	Simulation of two phase Flow Development in a Pipe using openFoam
09:30 - 10:00	Hanane Atmani	IMFT	An hybrid Lagrangian-IBM method for the CFD of inline bubbly flow separation
10:00 - 10:30	Safae El Misaoui	UM6P, ENS Paris-Saclay, ENSA Khouribga, Université Hassan 1er	Computational Fluid Dynamics modeling of a multiphase flow within the rotary drum granulator
10:30 - 11:00	Asmaa Hadane	UM6P, National School of Applied Sciences, Sultan Moulay Slimane University, Khouribga	CFD multiphase investigation of a phosphate flotation cell
11:00 - 11:30			Coffee break
Session 10: Environmental Flows - Chairman: Pr. Jean-Michel Ghidaglia (ENS Paris-Saclay, France and UM6P Morocco)			
11:30 - 12:00	S. Maazioui, F. Benkhaldoun, A. Beljadid, D. Ouazar	UM6P, U. Paris 13	Using Machine Learning Methods for Slurry Rheology Studies
12:00 - 12:30	M. Elkari, F. Benkhaldoun	UM6P, U. Paris 13	Simulation of sediment transport using computational fluid dynamics (CFD)
12:30 - 13:00	F. E. El Hamra, F. Benkhaldoun	UM6P, U. Paris 13	A Shallow Water model for sediment transport in a closed channel
13:00 - 14:00			Buffet lunch
			Bus from UM6P to Marrakech
			Visit of Marrakech
			Dinner in Marrakech
			Bus from Marrakech to Jardins Palmerale 3- Centre de Formation OCP and UM6P