

MULTIPHASE 2017: October 16, 17 & 18, 2017 - ENS-Cachan

Monday 16th			
08:30 - 08:45	J.-M. Ghidaglia, L. Brosset	ENS-Cachan, GTT (France)	Opening
Session 1: global flow, anti-sloshing devices, ship and liquid cargo coupling			
08:45 - 09:15	B. Molin	NTNU (Norway), Bureau Veritas (France)	On natural modes in moonpools and gaps
09:15 - 09:45	E. Eenkhoorn	Accede BV (The Netherlands)	Anti-Slosh Inflatable Component Case Study
09:45 - 10:15	E. Eenkhoorn	Accede BV (The Netherlands)	Anti-Slosh Inflatable Component Performance in Relation to Shape Retention and Load Transfer
10:15 - 10:30	Coffee break		
10:30 - 11:00	L. Diebold	Bureau Veritas (France)	Numerical study of anti-roll tanks
11:00 - 11:30	M. Aral	Yokohama National University (Japan)	Sloshing behaviour of liquid in prismatic LNG tanks and ship-tank coupled motion
Session 2: Liquid and Gas Compressibility - Part1			
11:30 - 12:00	R. de Böck	Eindhoven University of Technology (The Netherlands)	Comparison of numerical and analytical approach to wave impacts with entrapped gas
12:00 - 12:30	M. Ancellin	University College Dublin (Ireland), GTT , ENS-Cachan (France)	On the oscillations damping in extended Bagnold models
12:30 - 13:30	Buffet lunch		
13:30 - 14:00	J. Windt	MARIN (The Netherlands)	Liquid patch impact simulation with an incompressible solver
14:00 - 14:30	P.M. Guilcher	HydrOcean, NexFlow , GTT, Ecole Centrale Nantes (France)	Influence of liquid and gaz properties on impact pressures for a rectangular liquid patch impact
14:30 - 15:00	A. Mrabet	ENS-Cachan, CEA DAM (France)	Coupling of compressible and incompressible codes for the simulation of wave impact
15:00 - 15:30	N. Couty	HydrOcean, NexFlow , GTT, Ecole Centrale Nantes (France)	Phenomenological study of the interactions between pressure waves and development of jets for simplified liquid impacts
Session 3: Liquid and Gas Compressibility - Part2			
15:30 - 16:00	L. Diebold	Bureau Veritas (France)	CFD Validations for Sloshing
16:00 - 16:15	Coffee break		
16:15 - 16:45	O. Kimmoun	Ecole Centrale Marseille, GTT (France)	Experimental study of the liquid-jet-induced loads following a wave impact on MarkIII corrugations
16:45 - 17:15	J. A. Redford	ENS-Cachan (France)	Physical multi-phase flow model applied to aqueous foam shock tube experiments
17:15 - 17:45	D. van der Meer	University of Twente (The Netherlands)	Collapse of a non-axisymmetric air cavity in water
17:45 - 18:15	L. Zhang	ENS-Cachan, CEA Saclay (France)	Numerical Simulation of Two-Phase Flows using a Pressure-based Solver
Tuesday 17th			
Session 4: Free surface instabilities, fragmentation, flow variability - Part 1			
09:00 - 09:30	L. Brosset	GTT, ENS-Cachan (France)	Experimental Study of Surface Tension Effects on Sloshing Impact loads
09:30 - 10:00	M. Frihat	GTT, ENS-Cachan (France)	Experimental Study of Liquid Viscosity Effects on Sloshing impacts
10:00 - 10:30	R. Remmerswaal	University of Groningen (The Netherlands)	The Numerical Simulation of Free Surface Instabilities using an Immersed Jump Condition Model for Surface Tension
10:30 - 10:45	Coffee break		
10:45 - 11:15	S. Fortin	Ecole Polytechnique de Montréal (EPM) (Canada), GTT (France)	Surface tension implementation, verification and validation for separated two-phase flows
Session 5: Free surface instabilities, fragmentation, flow variability - Part 2			
11:15 - 11:45	Y. van Halder	Centrum Wiskunde & Informatica (The Netherlands)	Multi-Element Domain Decomposition for Multiphase Flow with Uncertainties
11:45 - 12:15	B.-J. Gréa	CEA DAM DIF, ENS-cachan (France)	What is the final size of turbulent mixing zones driven by the Faraday instability?
12:15 - 13:15	Buffet lunch		
13:15 - 13:45	G. Lavalie	University Paris-Saclay, Air Liquide (France)	Wave dynamics in counter-current gas-liquid flows for distillation process applications
13:45 - 14:15	R. Marcer	Principia, Technip, Cibernetic (France)	Experimental qualification of a CFD model for simulation of LNG spillage on solid structures
14:15 - 15:00	Bus from ENS-Cachan to GTT		
15:00 - 18:00	Visit of GTT		
18:00 - 19:00	Bus from GTT to Paris		
19:00 - 21:30	Dinner in Paris (Le Petit Riche, 25 rue le Peletier, 75009 Paris, M° Richelieu-Drouot or M° Le Peletier)		
Wednesday 18th			
Session 6: Viscosity, turbulent flows			
08:30 - 09:00	F.-X. Demoulin	University of Rouen (France)	Multiscale approach for liquid-gas flow to link homogeneous and separated multiphase flows
09:00 - 09:30	K. Lund Nielsen	Eni S.p.A. (Italy)	Experimental and numerical simulation of restarting flow of gelled crude oil
09:30 - 10:00	B. Lambert	INRIA, University of Bordeaux (France)	Modelling and Numerical Simulations of Contacts in Particle-Laden Flow
10:00 - 10:15	Coffee break		
Session 7: Phase change			
10:15 - 10:45	P. Behruzi	Airbus Safran Launchers (Germany)	Sloshing of cryogenic liquids in tanks
10:45 - 11:15	H. Mathis	University of Nantes (France)	A Thermodynamically consistent model of a liquid-vapor fluid with a gas
11:15 - 11:45	H. Ghazi	University of Nantes, MAPMO, University of Orléans (France)	A relaxation model for liquid-vapor phase change with metastable states
11:45 - 12:15	S. Jahangir	TU Delft (The Netherlands)	Experimental investigation of cavitation regimes present in a converging-diverging nozzle
12:15 - 13:15	Buffet lunch		
13:15 - 13:45	D. Fuster	Université Pierre et Marie Curie, ENSTA Bretagne (France)	Experimental investigation of cavitation inception in a confined fluid microlayer induced by high intensity pressure pulses
Session 8: Structural response			
13:45 - 14:15	J. G. Herterich	University College Dublin (Ireland)	Mechanics of large boulder creation due to wave impacts
14:15 - 14:45	T. Milcent	University of Bordeaux (France)	A Cartesian Scheme for Compressible Multimaterial Hyperelastic Models with Plasticity
14:45 - 15:15	R. Bos	TU Delft (The Netherlands), GTT (France)	Selecting potentially critical sloshing loads on an LNG cargo containment system
15:15 - 15:45	Q. Luo	CCS (China)	Rule development for sloshing and structure assessment of the liquid tanks based on the research of sloshing experiment and numerical analysis
15:45 - 16:00	Coffee break		
Session 9: Experimental techniques			
16:00 - 16:30	H. Bogaert	MARIN (The Netherlands)	Multiphase Wave Lab developed by SLING Programme
16:30 - 17:00	U. Jain	University of Twente (The Netherlands)	Impacting patterned discs on water
17:00 - 17:30	S. Schreier	TU Delft (The Netherlands)	Pressure Sensor Clusters – On the Way to 100 Pressure Sensors on 1-Euro Coin
17:30 - 18:00	M. Birvalski	MARIN (The Netherlands)	Exploratory measurements of bubbles in the wake of a ship model