

VIOLENT FLOWS 2012

Nantes, France

2012, September, 25th – 27th



Useful information

- All sessions will take place in 'Amphi S' in building S (see map on last page).
- Authors whose names are underlined are planned speakers.
- WiFi access: login: **wifi-ViolentFlows** / password: **2ndVF2012**

	<u>Tuesday 25</u>
09:15	Water entry
10:55	Waves
14:00	Two-phase violent flows I
15:10	Two-phase violent flows II
17:10	Shallow-water/ Coastal flows
18:30	Welcome cocktail

	<u>Wednesday 26</u>
08:45	Invited lecture: Dr. Hu
09:40	Green water I
10:55	Wave / Floating bodies I
14:00	Green water II
14:45	Wave / Floating bodies II
16:25	Sloshing / Impact
19:30	Banquet

	<u>Thursday 27</u>
08:30	Invited lecture: Dr. Colagrossi
09:20	Hydroelasticity
11:10	Complex flows in engineering
14:00	Violent free-surface impact flows
15:30	Compressible impact / Water entry

Tuesday 25th

08:30-09:00 Welcome and registration

09:00:00 **Opening of the 2nd International Conference on Violent Flows**
David Le Touzé, chairman of Local Organizing Committee
Pierre Ferrant, head of LHHEA Lab.

Water entry		
Chairman : D. Le Touzé		
09:15:00	<u>Scolan Yves-marie</u> , Korobkin Alexander	Low pressure occurrence during hydrodynamic impact of an elliptic paraboloid entering with arbitrary kinematics
09:33:00	<u>Javaherian Mohammad Javad</u> , Zeraatgar Hamid, Hassani Ehssan	Experimental investigation of asymmetric entry of a wedge shaped body
09:51:00	<u>Farbehi Zeinab</u> , Rafiee Abbas, Zeraatgar Hamid	Hydrodynamic analysis of planing crafts using Vortex Distribution Method
10:09:00	questions	

10:25:00 Coffee break

Waves		
Chairman : A. Colagrossi		
10:55:00	<u>Ermanyuk Evgeny</u> , Shmakova Natalia, Flor Jan-bert, Barraud Pierre-alain	Focusing and breaking of internal waves
11:13:00	<u>Verschaeve Joris</u> , Wroniszewski Pawel, Pedersen Geir, Lovholt Finn	Benchmarking of Navier-Stokes codes for free surface simulations by means of soliton run up
11:31:00	Kashiwagi Masashi, <u>Nakagawa Daisuke</u> , Yamamoto Kenta	Analysis of Unsteady Waves and Added Resistance Using CIP-based Cartesian Grid Method
11:49:00	questions	

12:05:00 Lunch break

Two-phase violent flows I		
Chairman : A. Veldman		
14:00:00	<u>Coupez Thierry</u> , Hachem Elie	Adaptive anisotropic mesh for complex multiphase flow problems
14:18:00	<u>Bernard-Champmartin Aude</u> , De Vuyst Florian	A low diffusive Lagrange-remap scheme for the simulation of violent air-water free-surface flows
14:36:00	<u>Khayyer Abbas</u> , Gotoh Hitoshi, Ikari Hiroyuki, Tsuruta Naoki	An Enhanced Particle Method for Simulation of Violent Multiphase Flows
14:54:00	questions	

Two-phase violent flows II		
Chairman : Th. Coupez		
15:10:00	<u>Sun Fanfan</u> , Tan Mingyi, Xing Jing Tang	Air-water two phase flow simulation using smoothed particle hydrodynamics
15:28:00	<u>Owen Herbert</u> , Houzeaux Guillaume, Samaniego Cristobal, Vázquez Mariano, Calmet Hadrien	General Purpose Two Fluid Level Set Simulations with the Parallel Finite Element code Alya
15:46:00	<u>Shipilova Olga</u> , Kulyakhtin Anton	Spray Generation in Marine Icing of Vessels
16:04:00	Wemmenhove Rik, Luppens Roel, <u>Veldman Arthur</u> , Bunnik Tim	Simulation of hydrodynamic wave loading by a compressible two-phase flow method
16:22:00	questions	

16:40:00 Coffee break

Shallow-water / Coastal flows		
Chairman : D. R. Rajaona		
17:10:00	<u>Viroulet Sylvain</u> , Kimmoun Olivier	Impulse wave generated by the collapse of a dry granular media
17:28:00	<u>Lindstrøm E.</u> , Jensen A., <u>Pedersen G.</u> , Sælevik G., Glimsdal S.	Impact and wave generation by sub-aerial slides in a fjord geometry
17:46:00	<u>Foglizzo Thierry</u> , Durand Gilles, Masset Frédéric, Guilet Jérôme	A shallow water analogue for asymmetric supernova explosions
18:04:00	questions	

18:30:00 **Welcome cocktail**

Wednesday 26th

08:45:00 **Invited Lecture**
 Changhong Hu
Development of CIP Based Cartesian Grid Method and Its Application to Strongly Nonlinear Wave-Body Interactions

Green water I		
Chairman : D. Wan		
09:40:00	<u>Shibata Kazuya</u> , Koshizuka Seiichi, Tamai Tasuku, Murozono Koji	Overlapping Particle Technique and Application to Green Water on Deck
09:58:00	<u>Hu Changhong</u> , Liu Cheng, Kashiwagi Masashi	Parallel Simulation of RIAM-CMEN for Strongly Nonlinear Wave-Ship Interaction
10:16:00	questions	

10:25:00 Coffee break

Wave / Floating bodies I		
Chairman : M. Kashiwagi		
10:55:00	<u>Field Parker</u> , Neu Wayne	URANS Computation of Two-Dimensional Rectangular Cylinder Added Mass and Damping in Heave and Sway
11:13:00	<u>Luo Xiaojing</u> , Brunswig Jörg, Manzke Manuel, Koliha Nils, Matin Farhan, Janßen Christian, Rung Thomas	Analyses of Coupled Floating Bodies in Seaway
11:31:00	Shen Zhirong, <u>Wan Decheng</u>	Numerical Simulations of Large-Amplitude Motions of KVLCC2 with Tank Liquid Sloshing in Waves
11:49:00	questions	

12:05:00 Lunch break

Green water II		
Chairman : S. Turnock		
14:00:00	Greco Marilena, <u>Lugni Claudio</u>	Numerical and experimental study of parametric roll with water on deck
14:18:00	<u>Van 't Veer Riaan</u> , Zuidscherwoude Wouter	FPSO Green Water on Deck Assessment
14:36:00	questions	

Wave / Floating bodies II		
Chairman : W. Neu		
14:45:00	<u>Rajaona Dominique Raphaël</u> , Ramanakoto Toky, Rasolomanana Eddy, Rakotondrajaona Luc	Analysis Of Non Linear Interference Between Two Cylinders Towed Beneath A Free Surface
15:03:00	<u>Jeong Kwang-leol</u> , Lee Young-gill, Lee Seung-hee, Ha Yoon-jin	Numerical Simulations of the Wave Attenuating by Two-dimensional Floating Breakwaters in Large-amplitude Waves
15:21:00	questions	

15:30:00 Coffee break

Sloshing / Impact		
Chairman : N. Grenier		
16:00:00	<u>Frandsen Jannette</u>	Sloshing in tanks: assessment of traditional and lattice Boltzmann solutions
16:18:00	Gotoh Hitoshi, Khayyer Abbas, <u>Ikari Hiroyuki</u> , Tsuruta Naoki	An Improved 3D Particle Method for Violent Wave Impact Calculations
16:36:00	<u>Dyment Arthur</u>	A model of the impact of liquid jets
16:54:00	questions	

19:30:00 Rendez-vous for the Banquet at place du Commerce (see instructions attached)
Banquet at 'Auberge du Vieux Gachet'

Thursday 27th

Invited Lecture

08:30:00 Colagrossi Andrea

A survey of twelve years research activity on Smoothed Particle Hydrodynamics method applied to the Naval Hydrodynamics context.

Hydroelasticity		
Chairman : Y.-M. Scolan		
09:20:00	<u>Davis Michael</u> , J. Lavroff, G.A. Thomas	Identification Of Extreme Impulsive Slam Loads On High Speed Ferries By Hydro-Elastic Model Testing
09:38:00	<u>Fourey Guillaume</u> , Oger Guillaume, Le Touzé David, Alessandrini Bertrand	Weak coupling strategy between FE and SPH methods for FSI simulations
09:56:00	Mcguckin Damian, El-khalidi Fouad, Kamoulakos Argiris, Cartwright Bruce, Croaker Paul, <u>Groenenboom Paul</u>	Virtual Prototyping of Structures Subjected to Violent Flow Using a Fully Coupled SPH/FE Approach
10:14:00	questions	

10:30:00 Coffee break / **NextMUSE live demonstration**

Complex flows in engineering		
Chairman : C. Hu		
11:10:00	<u>Marrone Salvatore</u> , Bouscasse Benjamin, Colagrossi Andrea	Numerical modeling of ship wave patterns through a hybrid OpenMP/MPI SPH solver
11:28:00	De Lefte Matthieu, Guilcher Pierre-Michel <u>Candelier Julien</u> , Le Touzé David, Oger Guillaume, Grenier Nicolas	SPH simulation of naval applications
11:46:00	<u>Le Touzé D.</u> , Barcarolo D.A., Kerhuel M., Leboeuf F., Caro J., Quinlan N., Lobovsky L., Basa M., Colagrossi A., Marrone S., Marongiu J.-C. De Lefte M., Guilcher P.-M.	Investigation of SPH variants for simulating violent flows within the NextMUSE initiative
12:04:00	questions	

12:20:00 Lunch break

Violent free-surface impact flows		
Chairman : A. Dymnt		
14:00:00	<u>Tan Naruhiko</u> , Aoki Takayuki, Hu Changhong, Sueyoshi Makoto	Large-Scale Simulation of Violent Flow Impacting on an Obstacle
14:18:00	<u>Viccone Giacomo</u> , Bovolin Vittorio, Pugliese Carratelli Eugenio	Using SPH to compute slamming loads on vertical structures
14:36:00	<u>Ozbulut Murat</u> , Goren Omer, Yildiz Mehmet	A Numerical Refinement Study on the SPH Modeling of Violent Free Surface Flows
14:54:00	<u>Barcarolo Daniel</u> , Le Touzé David, De Vuyst Florian	Presentation of an Explicit Incompressible Smoothed Particle Hydrodynamics algorithm and its validation to violent flows.
15:12:00	questions	

Compressible impact / Water entry		
Chairman : M. Davis		
15:30:00	<u>Hicks Peter</u> , Purvis Richard	Compressible air cushioning in liquid-solid impacts
15:48:00	<u>Gropengiesser Willem</u> , Rung Thomas	Real-time simulation of Aircraft ditching using enhanced potential flow methods
16:06:00	Bennett Sally, Winden Bjorn, Brooks Christopher, <u>Turnock Stephen</u> , Hudson Dominic	High speed video analysis of freak wave-ship model encounters
16:24:00	questions	

16:40:00 **Closing of the 2nd International Conference on Violent Flows**

List of registrants

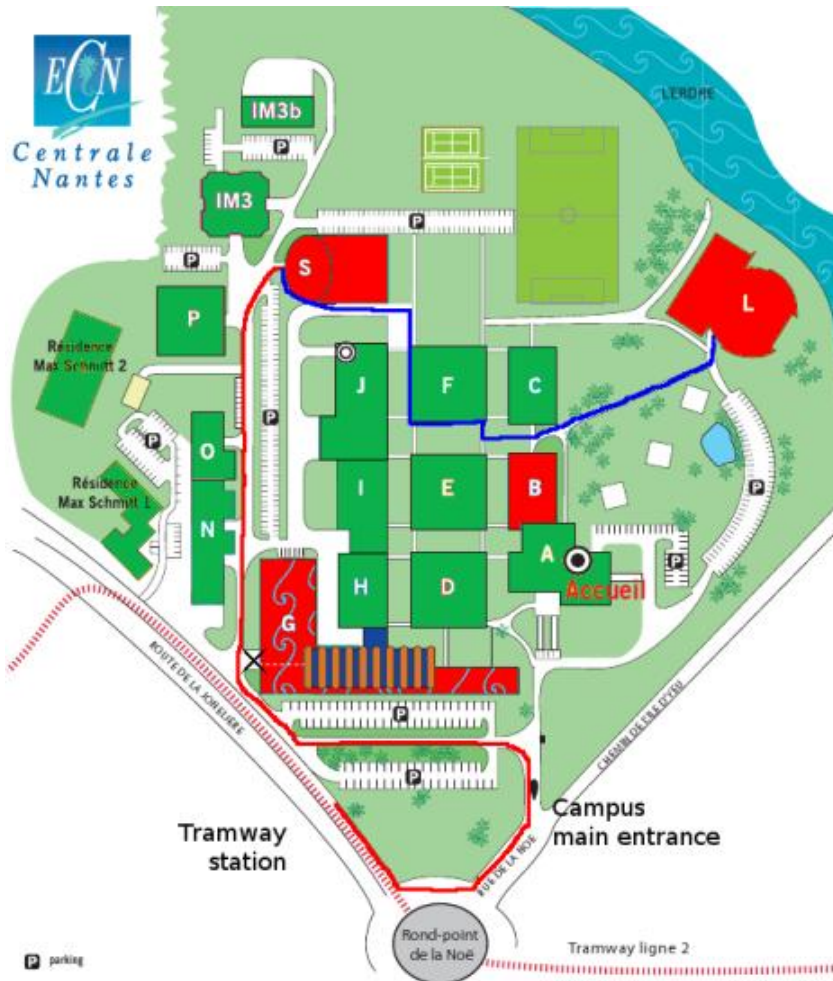
Lastname	Firstname	Affiliation	Country
Aoki	Takayuki	Tokyo Institute Of Technology	Japan
Bernard-Champmartin	Aude	Ceremade Cnrs Umr 7534 / Cmla-Ens Cachan	France
Brosset	Laurent	GTT	France
Candelier	Julien	Hydrocean	France
Chen	Xiaobo	Bureau Veritas	France
Colagrossi	Andrea	CNR-INSEAN	Italy
Coupez	Thierry	Mines Paristech - Cemef	France
Davis	Michael	University Of Tasmania	Australia
De Leffe	Matthieu	Hydrocean	France
Dyment	Arthur	Lab. Mecanique De Lille, Cnrs Umr 8107	France
Ermanyuk	Evgeny	Lavrentyev Institute Of Hydrodynamics	Russia
Field	Parker	Virginia Tech	United States
Foglizzo	Thierry	CEA Saclay	France
Frandsen	Jannette	Abengoa Research S.L	Spain
Groenenboom	Paul	ESI-Group	Netherlands
Gropengießer	Willem	Hamburg University Of Technology	Germany
Hicks	Peter	University Of Sheffield	Uk
Hu	Changhong	Kyushu University	Japan
Ikari	Hiroyuki	Kyoto University	Japan
Jeong	Kwang-Leol	Graudate School, Inha University	South Korea
Kashiwagi	Masashi	Osaka University	Japan
Khayer	Abbas	Kyoto University	Japan
Kimmoun	Olivier	Ecole Centrale Marseille / Irphe	France
Laval	Damien	DCNS	France

Lastname	Firstname	Affiliation	Country
Lindstrom	Erika	University Of Oslo	Norway
Luo	Xiaojing	Hamburg University Of Technology	Germany
Marrone	Salvatore	CNR-INSEAN	Italy
Nakagawa	Daisuke	Osaka University	Japan
Neu	Wayne	Virginia Tech	Usa
Owen	Herbert	Barcelona Supercomputing Center	Spain
Ozbulut	Murat	Istanbul Technical University	Turkey
Pedersen	Geir Kleivstul	Department Of Mathematics, University Of Oslo	Norway
Rafiee	Ashkan	University College Dublin	Ireland
Rajaona	Raphael Dominique	LOMC Umr Cnrs 6492 Univ Of Le Havre	France
Rovarch	Jean-Michel	Gaztransport & Technigaz	France
Scolan	Yves-Marie	Ensta-Bretagne	France
Shibata	Kazuya	The University Of Tokyo	Japan
Shipilova	Olga	Det Norske Veritas	Norway
Sun	Fanfan	Southampton University	Uk
Tan	Naruhiko	Nissan Motor Co.,Ltd.	Japan
Turnock	Stephen	University Of Southampton	England
Van't Veer	Riaan	Sbm Schiedam	The Netherlands
Veldman	Arthur	University Of Groningen	The Netherlands
Viccione	Giacomo	Dept. Of Civil Engineering, University Of Salerno	Italy
Viroulet	Sylvain	IRPHE	France
Wan	Decheng	Shanghai Jiao Tong University	China
Wroniszewski	Pawel	University Of Oslo	Norway

Red path: From tramway station to Conference attendance

Blue path: to the building L for lunch

Hall A: Welcome cocktail



Rendez-vous for the banquet at 19:30 wednesday:

- 'Commerce' tramway station
- 8 Allée Brancas
- In front of the travel agency 'Nouvelles Frontières'

