

## Tuesday 25th

08:30-09:00 Welcome and registration

09:00:00 **Opening of the 2<sup>nd</sup> 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	Shibata Kazuya, Koshizuka Seiichi, Tamai Tasuku, Murozono Koji	Overlapping Particle Technique and Application to Green Water on Deck
09:58:00	Hu Changhong, 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		
Field Parker, Neu Wayne		
10:55:00	URANS Computation of Two-Dimensional Rectangular Cylinder Added Mass and Damping in Heave and Sway	
11:13:00	Luo Xiaojing, Brunswig Jörg, Manzke Manuel, Koliha Nils, Matin Farhan, Janßen Christian, Rung Thomas	Analyses of Coupled Floating Bodies in Seaway
11:31:00	Shen Zhirong, Wan Decheng	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		
Greco Marilena, Lugni Claudio		
14:00:00	Numerical and experimental study of parametric roll with water on deck	
14:18:00	Van 't Veer Riaan, Zuidscherwoude Wouter	FPSO Green Water on Deck Assessment
14:36:00	questions	

Wave / Floating bodies II		
Chairman : W. Neu		
14:45:00	Rajaona Dominique Raphaël, Ramanakoto Toky, Rasolomanana Eddy, Rakotondrajaona Luc	Analysis Of Non Linear Interference Between Two Cylinders Towed Beneath A Free Surface
15:03:00	Jeong Kwang-leol, 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		
Frandsen Jannette		
16:00:00	Sloshing in tanks: assessment of traditional and lattice Boltzmann solutions	
16:18:00	Gotoh Hitoshi, Khayyer Abbas, Ikari Hiroyuki, Tsuruta Naoki	An Improved 3D Particle Method for Violent Wave Impact Calculations
16:36:00	Dyment Arthur	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**