Brazilian Symposium on Water Waves Federal University of Rio de Janeiro March 14-16, 2016

### Sponsors: CAPES, US Office of Naval Research Global (ONRG), Ambidados, CNPq, Hidromares, Nortek

# Program, oral presentations

Day 1, Monday			
9:00-9:30 <b>Session 1</b>	Fluid Mechanics of Waves	Opening Chair: Alex Babanin	Characterization of wave field evolution in a wind-wave tank under steady and unsteady wind
9:30-10:00 invited		Lev Shemer	forcing
10:00-10:20		Jason Monty, J. H. Lee, A. Toffoli, A. Albarello, J. Elsnab and A. Babanin	Laboratory studies of energy dissipation under breaking waves  Wave mode conversion and reflection in the interaction of linear water waves with variable
10:20-10:40		Karl Burr	bathymetry
10:40-11:00		Horst Punzmann, Nicolas Francois, Hua Xia and Michael Shats	Flow generated by surfaces waves
<u>Coffee break</u>			
Session 2	Ocean Wave Dynamics	Chair: Mark Donelan	
11:30-12:00 invited		Leandro Farina Pedro Veras Guimaraes, Yves Perignon, Fabrice Ardhuin and Charles Peureux	Local dimensionality of ocean waves
12:00-12:20		Fabien Leckler, Pierre Ferrant	Stereo video observations of short waves breaking modulated by longer waves
12:20-12:40		Andres Salazar, Jesús Portilla and Luigi Cavaleri	On the behavior of wave systems in the Eastern Equatorial Pacific under ENSO regime
12:40-1:00		Rodrigo Lisboa, Paulo R. F. Teixeira	Numerical simulation of Wave Propagation at Cassino Beach (South of Brazil)
<u>Lunch</u>			
Session 3	Nonlinear Wave Dynamics	Chair: Carlos Eduardo Parente	
2:30-3:00 invited		Takuji Waseda	Resonant interaction of surface gravity waves under influence of external forcing
3:00-3:20		Sergei Annenkov, Victor Shrira	Modelling the impact of fast wind changes on wind waves with the generalized kinetic equation Internal Solitary Waves off the Amazon River Mouth: coherence crestlenghts and generation
3:20-3:40		C.A.D. Lentini, J. M. Magalhaes, J. C. B. da Silva and J. A. Lorenzzetti	mechanism

# <u>Coffee break</u>

Day Close

3:40-4:00

Session 4 Extreme Waves 4:30-5:00 invited 5:00-5:20 5:20-5:40 5:40-6:00  Extreme Waves  Mark Donelan F. Dentale, F. Reale, R. Tomasicc Bardur Niclasen Ricardo Fabbri	hio and E.Pugliese Carratelli
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Sonia Ponce de Leon, F. Dias

Unmasking the Rogue – The Making of the Andrea Wave Sampling Error in the Estimation of Significant Wave Height Extreme Values from Bouy Data Assessing the risk of overtopping waves by lessons learned in time Image-based fluid modelling

"Sensitivity of a spectral wave model to the nonlinear interactions".

# Day 2, Tuesday

Session 5	Long Waves	<u>Chair: Leandro Farina</u>
9:00-9:30 invited Eloi Melo		Eloi Melo
9:30-9:50		Ilson da Silveira, César Rocha, Tiago Biló, André Palóczy and Glenn Flierl
9:50-10:10		Paulo Polito

Non-tidal coastal sea level variation along Southeastern South America – Progress Report Brazil Current Instability Waves Off Southeast Brazil Spectrum of Wind Driven Rossby Waves on a Non Linear QG Model

Afonso de Moraes Paiva, Guilherme Nogueira Mill, Vladimir Santos da Costa, 10:10-10:30 Victor Bastos Daher, Simone Silva Barem Camargo and João Bosco Rodrigues The generation of internal tides at the VitóriaTrindade Alvarenga Coffee break Wave Spectra Session 6 Chair: Lev Shemer 11:00-11:30 invited Carlos Eduardo Parente, H.P. Pereira Daat - New Technique for Ocean-Wave Directional Analysis Henrique Pereira, Vitor Lopes; Nelson Violante; Uggo F. Pinho; Carlos Eduardo 11:30-11:50 Observation of PNBOIA's Metocean Buoys Deployed in Southern Coast of Brazil Parente; Izabel C. M. Nogueira; Fabio Nascimento and Alexander V. Babanin 11:50-12:10 Wave spectra partitioning and long term statistical distribution Jesús Portilla-Yandún, Luigi Cavaleri 12:10-12:30 Rafael Guedes, , Karin R. Bryan and Giovanni Coco Wave Reflection and Swash Motions on a Low-Sloping Beach <u>Lunch</u> Session 7 Wave Modelling Chair: Eloi Melo 2:00-2:30 invited Paco Ocampo-Torres, P. Osuna and A. O. Hernández Laboratory study of non-breaking surface wave induced turbulence Current-Induced Dissipation in Spectral Wave Models 2:30-2:50 Henrique Rapizo, Alexander Babanin, David Provis and Erick Rogers Automatic calibration of the parameters and inputs of a coastal wave model with an 2:50-3:10 Rodrigo Alonso , Sebastián Solari evolutionary Bayesian method. George Kallos, G. Galanis, C. Kalogeri, P. Patlakas, C. Stathopoulos and A. The European offshore wind and wave energy resource analysis - Combined exploitation -3:10-3:30 Liakatas Analysis of extremes Coffee break Session 8 Ocean Engineering Chair: Paco Ocampo-Torres 4:00-4:30 invited Antonio Carlos Fernandes Experimental Facilities in the Laboratory of Waves and Currents 4:30-4:50 Milad Shadman, Segan Estefan Geometry optimization of a wave energy point absorber for the Rio de Janeiro coast 4:50-5:10 Rafael Passos, Antonio Carlos Fernandes and Ramon Romankevicius Design and Construction of an Active Wave Absorber in a Wave Channel 5:10-5:30 Felipe Sprovieri, Elirio Toldo Jr. Wave Power Potential in Southern Brazil Conference dinner Day 3, Wednesday

Session 9 9:00-9:30 9:30-9:50 9:50-10:10 10:10-10:30	Measurements and Observations	Chair: Antonio Carlos Fernandes Nelson Violante-Carvalho Victor Avila Fabio Nascimento, Henrique P. P. Pereira, Tobias Ferreira and Marlon Santos; Bruno Saliba Marcello Passaro, Paolo Cipollini and Luciana Fenoglio-Marc	Wave Diffreaction around Islands from ERS-2 SAR Images The Optical Wavemeter  The State of the Art, in Brazil, in Wave Measurement Using Buoy Systems "Measuring Coastal Significant Wave Height from Radar Altimetry with ALES Retracker"
<u>Coffee break</u>			

Session 10 11:00-11:30 11:30-:11.50 11:50-12:10	Wave Climate	Nelson Violante-Carvalho Alex Babanin Felipe Sprovieri, Elirio Toldo Jr C. Dalinghaus, Alveirinho Dias, M. González, P. Gomes da Silva and A.H.F. Klein,	Wind-Generated Waves - Interfact Reconstruction and Analysis of Wave climate variability and trendecades (1948-2008) and its relative to the control of the
12:10-12.30		André Lima Torres Mendes	Development of a Brazilian Wave

face Between the Ocean and Atmosphere Wave Climate in Southern Brazil ends in front of Santa Catarina island, south of Brazil, over six elationship with different climate indices ve Buoy

Conference Close

Visit to Lab Oceano (limited numbers)

See next page

### Program, poster presentations

1 Douglas Nemes (long waves)

2 Douglas Nemes (wave dynamics)

3 D.M. Machado (wave climate)

4 Adriano Wiermann (wave modelling)

5 *Uggo de Pinho (nonlinear wave dynamic)* 

6 Adrieni De Andrade (wave climate)

7 Paul Liu (extreme waves)

8 Fernando Calmon Sobral (long waves)

9 Rogerio Neder Candella (Extreme waves)

10 Bruna Oliveira (wave modellig)

Study of Gravity Waves and Infragravity Band Spectum on a Complex Intermediate Beach System

Wave Breaking Parameters on Beach Break, Point Break and Reef Break to Desing Artificual Surfing Reef

Wave Climate and Events Migration Mud at Cassino Beach, RS, Brazil: An Investigation

Advantages of cloud computing for wave forecast systems

Emergence of Short-Crestedness in Originally Unidirectional Nonlinear Waves – Revisited.

Wave and Wind Characterization Near AÇÚ Port Region - Rio de Janeiro - Brazil

"There is no such thing as freaque waves!"

Swash Analysis and the Associated Beach Morphological Changes: an Infrafgravity Waves Approach

Freak Waves in the Southern Ocean: A Preliminary Study

Decadal Variability of the Waves Climate Through Model WAVEWATCH III in Santa Catarina Coast







