WISE 2013 Agenda

21-25 April 2013, College Park, Maryland, USA

Sunday, 21 April 2013

17.00 – 20.00 Registration and ice breaker

Monday, 22 April 2013

08.45 – 09.00 **Hendrik Tolman**
Welcome - logistical information

Physics – Chair: Erick Rogers

09.00 – 09.30 **Sang Soo Lee**
Critical-layer analysis of wind-driven oblique surface waves

09.30 – 10.00 **Russel P. Morison, Michael J. Banner**
Wave input and dissipation in WAVEWATCH III and wave breaking and sea spray forecasts

10.00 – 10.30 **Andrei N. Pushkarev, Vladimir E. Zakharov**
Nonlinear generation of surface waves against the wind in a limited fetch growth model

10.30 – 11.00 Coffee Break

11.00 – 11.30 **Alexander Soloviev, Roger Lukas, Mark Donelan, Isaac Ginis**
The air-sea interface and surface stress in hurricanes

Modelling – Chair: Jaak Monbaliu

11.30 – 12.00 **W.E. Rogers**
Momentum fluxes: implementation and validation within SWAN and WW3

12.00 – 12.30 **André van der Westhuysen, Roberto Padilla-Hernandez, Pablo Santos, Alex Gibbs**
Development and validation of the near-shore wave prediction system

12.30 – 14.00 Lunch Break

14.00 – 14.30 **Marissa L.Yates, Michel Benoit**
Accurate modeling of nonlinear and dispersive waves in the coastal zone

14.30 – 15.00 **James Salmon, Leo Holthuijsen**
Wave breaking in shallow water

Theory – Chair: Andrei Pushkarev

15.00 – 15.30 **H. Aiki, R.J. Greatbatch**
A new expression for the form stress term in the vertically Lagrangian mean framework for the effect of surface waves on the upper ocean circulation

15.30 – 16.00 Coffee Break

16.00 – 16.30 **Michael Banner, Christopher Zappa, Johannes Gemmrich**
Phillips' spectral framework for ocean whitecaps revisited

16.30 – 17.00 **Sergei A. Kitaigorodskii**
The fundamentals of the modern methods in wind wave forecasting and their use in wave modelling

17.00 – 17.30 **H.Joseph Sienkiewicz**
An overview and demonstration of operations at NCEP's Ocean Prediction Center.

Tuesday, 23 April 2013

Measurements– Chair: Francisco OCampo Torres

09.00 – 09.30 **C.J.Zappa, M.L. Banner, C.W.Fairall, R.P.Morison, W.L.Peirson**
A laboratory study of sea spray from breaking waves. Microphysical

droplets, wind and wave properties

09.30 – 10.00 **Paul A. Hwang, Mark A. Sletten, Jakov V. Toporkov, Steve P. Menk**
Measuring wave breaking by radar

10.00 – 10.30 **Robert E. Jensen, T.J. Hesser, V. Swail**
Are wave measurements actually ground truth?

10.30 – 11.00 Coffee Break

Nonlinear Processes – Chair: Gerbrant van Vledder

11.00 – 11.30 **Miguel Onorato, Peter Janssen, Jean Bidlot**
On the nonlinear transfer calculation

11.30 – 12.00 **Yana Saprikyna, Sergey Kuznetsov, Margarira Shtremel**
Classification and parameterization of typical scenarios of nonlinear transformation of waves in coastal zone

12.00 – 12.30 **Al Osborne**
Approach to rogue wave prediction using forecasting/hindcasting models for fully directional sea states

12.30 – 14.00 Lunch Break

14.00 – 14.30 **William Perrie, Bash Toulany, Don Resio**
A two-scale approximation for wave-wave interactions in an operational wave forecast model

Theory – Chair: Yaron Toledo

14.30 – 15.00 **Francesco Fedele, Alvise Benetazzo**
Space-time extremes of oceanic seas

15.00 – 15.30 **Vladimir E. Zakharov, Donald T. Resio, Andrei N. Pushkarev**
New wind input term consistent with experimental, theoretical and numerical considerations

15.30 – 16.00 Coffee Break

16.00 – 16.30 **George Mellor**
Surface boundary layers and gravity waves

16.30 – 17.30 **Poster session**

Wednesday, 24 April 2013

Theory – Chair: Michael Banner

09.00 – 09.30 **P.B. Smit, T.T. Janssen**
Evolution of coherent interference in random waves

09.30 – 10.00 **Vladimir E. Zakharov, Sergei I. Badulin**
On relaxation due to nonlinear transfer in the wind-wave spectra

10.00 – 10.30 **T. Hirobe, T. Waseda, T. Kinoshita, T. Kawamura**
Spectral broadening of free surface gravity waves as a consequence of resonance and quasi-resonance cascade under influence of wind

10.30 – 11.00 Coffee Break

Modelling – Chair: Richard Gorman

11.00 – 11.30 **Luigi Cavaleri, Luciana Bertotti, Aron Roland**
Nested grids: accuracy and problems. Towards the unstructured grids

11.30 – 12.00 **J. Monbaliu, H. Ortega**
Intercomparison of 6 wave models at the Catalan coast

12.00 – 12.30 **Hendrik Tolman**
Wave model updates from NCEP: WAVEWATCH, operations and NOPP

12.30 – 13.00 Lunch Break

13.15 Leaving for the field trip

19.30 – 21.30 Official Dinner

Thursday, 25 April 2012

Modelling – Chair: Alessandro Toffoli

09.00 – 09.30 **Richard Gorman**
Adaptive mesh refinement in spectral wave modelling

Measurements – Chair: Alessandro Toffoli

09.30 – 10.00 **D. Kiefhaber, R. Rocholz, C. Zappa, G. Caulliez, B. Jahne**
Measurements of wave height and slope statistics using the Reflective Stereo Slope Gauge

10.00 – 10.30 **Henry Potter, Clarence O. Collins, Rafael J. Ramos, Willima M. Drennan, Hans C. Graber**
The influence of waves on momentun fluxes in typhoons

10.30 –11.00 Coffee break

11.00 – 11.30 **Michael Schwendeman, Jim Thomson, Johannes Gemmrich**
Wave breaking dissipation in a fetch-limited sea

11.30 –12.30 Discussion

12.30 – 14.00 Lunch Break

Coupling – Chair: Hendrik Tolman

14.00 – 14.30 **Zhifei Dong, James T. Kirby**
Wave-current interaction in strongly sheared mean flows

14.30 – 15.00 **Yaron Toledo, Victor Shrira**
A wave action equation for water waves propagation on vertically sheared flows

Experiments – Chair: Yana Saprikyna

15.00 – 15.30 **A. Toffoli, L. Bennetts, A. Albarello, M. Meylan, A. Babanin**
Assessing ice-induced attenuation of water waves in a directional wave basin

15.30 – 16.00 Coffee Break

16.00 – 16.30 **Clarence O. Collins, Henry Potter, Rafael J. Ramos, Hans C. Graber, William M Drennan**
In situ observations of the spatial variation of waves and momentum flux in typhoons

16.30 – 17.00 **Lev Shemer, Dan Liberzon**
Experiments on kinematics of deep-water breaking waves

17.00 – 17.30 **F.J. Ocampo-Torres, H. Branger, P. Osuna**
Exploring the effect of accelerated winds on the wave growth and the early stage of surface drift in the laboratory

17.30 Meeting Closed

Posters

Jose-Henrique G.M. Alves
NCEP numerical wave guidance and NCEP/FNMOC combined probabilistic forecasts during tropical storm Sandy (Atlantic Ocean, Oct/2012) and Narelle (Indian Ocean, Jan/2013)

Alex V. Babanin
Instabilities of ocean wave fields

Sergei I. Badulin, Vika G. Grigorieva
Weakly turbulent laws of wind wave growth for wave studies from space

Ricardo Martins Campos, Jose-Henrique G.M. Alves
Estimating extreme waves in the South Atlantic ocean using regional frequency analysis and wave model hindcast data

Rogerio Neder Candella
Wave parameters from sound records

Elodie Charles, Mark Hemer
Coupling of a wave model within the ACCESS climate system

M. Derakhti, T. Kirby
Fluid-bubble interaction and dissipation mechanisms under unsteady breaking waves

Mickail Dobrynin, Jens Murawski, Johanna Baehn, Tatiana Ilyina
Trends and variability in modelled wave climate detected using projections of an Earth system model

Alexander W. Fisher, Lawrence P. Sanford
Wind stress dynamics in Chesapeake Bay: variability, wave dependence, and comparisons to bulk theory

Gabriel Garcia-Medina, H.Tuba Ozkan-Haller, Peter Ruggiero
An inner-shelf wave forecasting system for the US Pacific Northwest

J. Groeneweg, P. Wellens
On the modelling of long wave penetration in tidal inlet systems

Valdir Innocentini, Ernesto Caetano
An early warning scheme to detect swell at Brazilian coast associated to intense wave systems

Sabique Langodan, Ibrahim Hoteit, Luigi Cavaleri
Wind and wave modelling in the Red Sea

Susanne Lehner, Andrey Pleskachevsky, Johannes Gemmrich, Mikhail Dobrynin
Ice and sea state in Artic regions

Susanne Lehner, Andrey Pleskachevsky, Wolfgang Rosenthal
Storm observations by remote sensing, influences of organized gusts on ocean waves and on generation of rogue waves

Jian-Guo Li, Andrew Saulter
Could nested grids be replaced with a multi-resolution grid in wave models?

Bjoern Lund, Hitoshi Tamura, Hans C. Graber
Shipborne marine X-band radar wave retrieval during ITOP: comparison with WAVEWATCH-III

Ruben D. Montoya, Andres F. Osorio
Methodology to correct wind speed during wind conditions: application to the Caribbean Sea

Jens Murawski, Mickail Dobrynin, Shuting Yang
Future projections of wave induced bed shear-stress in shallow water

Mohammad Olfatech, David P. Callaghan
Parametric presentation of asymmetric tropical cyclones

Andres F. Osorio, Ruben D. Montoya, Juan Carlos Ortiz, Santiago Ortega Arango, Natalia Moreno Castro, Daniel Santiago Pelaez Zapata
Methodology for the construction of time series of synthetic wave parameters along the Colombian Caribbean coast

Roberto-Padilla Hernandez, André van der Westhuysen, Hendrik Tolman
High-resolution, nearshore application of WAVEWATCH III

Will Perrie, Bash Toulany, Changsheng Chen, Robert C. Beardsley, Aron Roland
Modelling of North Atlantic Nor'easterns with modern wave forecast models

V.G. Polnikov, F.A. Pogarskii, G.S. Golitsyn
Space-time variability of the field of mechanical energy transfer from the atmosphere to the Indian Ocean.

Jesus Portilla
Characterization of storm generating zone for wave climate assessment

A. Sanchez-Arcilla, E. Pallares, M. Espino
Wave model performance under transient conditions. The whitecapping term and rate of wave growth for the North Western Mediterranean

Y.V. Saprikyna, B.V. Divinskii
Experimental investigation of change of energy of infragravity waves in dependence on spectral characteristics of an irregular wind waves in coastal zone

Deanna Spindler, Arun Chawla, Hendrik Tolman
Correcting Climate Forecast System Reanalysis (CFSR) winds for oceanographic applications

Hendrik L. Tolman
Scaling of WAVEWATCH on parallel computers

P. Vethamony, S.V. Samiksha, K. Vinodkumar
Extreme wave prediction during cyclones along the coast of India: a challenge

Gerbrant van Vledder
The future of DIA

Masaki Yokota, Noriaki Hashimoto
Sea surface drag coefficient estimated with ADWAM from field data

Vladimir E. Zakharov, Sergei I. Badulin
On the equilibrium of the generalized Phillips' spectra

Daniel Santiago Pelaez Zapata, Carlos David Hoyos, Ruben Dario Montoya Ramirez
Wave climate variability in the insular Colombian Caribbean region near the San Andres and Old Providence islands: multiple time scale approach

Stefan Zieger, Alexander V. Babanin, W. Erick Rogers, Ian R. Young
Global simulation with observation-based source term in a third generation wave model