

WISE 2014

8-12 June 2014, ECMWF, Reading, U.K.

With the support of ONRG London

AGENDA

Sunday, 8 June 2014

- 15.00 – 16.00 **Adrian Simmons, Hans Hersbach, Paul Poli and Jean-Raymond Bidlot**
Revisiting the meteorology of June 1944 using a modern analysis and forecasting system
- 16.00 – 17.00 **Peter Janssen**
Role of ocean waves in an Earth System Model
- 17.00 – 18.00 **Registration**
- 18.00 **Buses leave for ice breaker**

Monday, 9 June 2014

- 08.15 – 08.45 **Registration for late arrivals**
- 08.45 – 09.00 **Erland Källén and Peter Janssen**
Welcome - logistical information

Modelling – Chair: Jean Bidlot

- 09.00 – 09.30 **Jose-Henrique G. M. Alves, Natacha Bernier, Paul Wittmann**
The North American Wave Ensemble System (NAWES): Improving the reliability of operational wave forecasts through international cooperation
- 09.30 – 10.00 **W. Erick Rogers, Stefan Zieger**
New wave-ice interaction physics in WAVEWATCH III (R)
- 10.00 – 10.30 **Jesús Portilla, Luigi Cavaleri, Roberto Padilla-Hernández, Jaak Monbaliu**
On the specification of the background error covariance matrix for wave data assimilation systems
- 10.30– 11.00 *Coffee Break*

Theory – Chair: Peter Janssen

- 11.00 – 11.30 **S. Annenkov, V. Shrira**
Modelling transient sea states with the generalized kinetic equation
- 11.30 – 12.00 **Vladimir E. Zakharov, V. Geogdjaev, Sergei I. Badulin**
Hasselmann's equation revisited: new forms of coupling coefficient and dissipation term
- 12.00 – 13.00 **Poster Session**
- 13.00 – 14.00 *Lunch Break*

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Programme - continued

Physics – Chair: Mike Banner

- 14.00 – 14.30 **Y. Perignon, F. Ardhuin, M. Cathelain, M. Robert**
Swell dissipation by induced atmospheric shear stress
- 14.30 – 15.00 **Johannes Gemmrich, Svein Vagle, Jim Thomson**
Breaking waves, turbulence and bubbles
- 15.00 – 15.30 **F. Ardhuin, J.-R. Bidlot, D. Vandemark, L. Aouf, M.-N. Bouin**
Wind, wind stress, mean square slopes and the short wave spectrum
- 15.30 – 16.00 *Coffee Break*

Measurements – Chair: Ian Young

- 16.00 – 16.30 **H.H. Sepulveda, F. Ardhuin, Pierre Queffelec**
Evaluation of SARAL/Altika observations of small (<1.5 m) significant wave height:
Comparison with buoy and Jason-2 data
- 16.30 – 17.00 **Alex Mouche, Sentinel-1 L2 wave cal/val team**
Sentinel-1 advanced capabilities for improved wave spectra estimation and beyond
- 17.00 – 17.30 **Michael Schwendeman, Jim Thomson**
Shipboard video observations of whitecaps in the North Pacific

Tuesday, 10 June 2014

Theory– Chair: Yaron Toledo

- 09.00 – 09.30 **M.L. Banner, X. Barthelemy, F. Fedele, M. Allis, A. Benetazzo, F. Dias, W.L. Peirson**
Linking reduced breaking crest speeds to unsteady nonlinear water wave group behaviour
- 09.30 – 10.00 **V.E. Zakharov, A. Pushkarev**
Self-similarity of wind input terms and magic numbers
- 10.00 – 10.30 **Nobuhito Mori**
Estimation of maximum wave heights by wave spectral model
- 10.30 – 11.00 *Coffee Break*

Experiments – Chair: Tom Baldock

- 11.00 – 11.30 **F. J. Ocampo-Torres, H. Branger, P. Osuna, L. Robles**
On the surface wind drift at short fetches as observed in a wind wave flume
- 11.30 – 12.00 **Guillemette Caulliez**
Observations of the near-surface flow driven in water by wind and waves
- 12.00 – 12.30 **Hidetaka Houtani, Takuji Waseda, Wataru Fujimoto, Keiji Kiyomatsu, Katsuji Tanizawa**
Reproducing freak waves in a fully directional wave basin based on HOSM simulation
- 13.00 **Field trip**
Buses leave for HR Wallingford to arrive at 14.00 hrs. During the bus trip we have packed lunch provided by the restaurant. After the visit to HR Wallingford we have at 16.00 a boat trip back to Reading arriving at around 19.00.

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Programme - continued

Wednesday, 11 June 2014

Physics – Chair: Johannes Gemmrich

- 09.00 – 09.30 **J. Thomson, J. Gemmrich, S. Moghimi, S. Zippel, M. Schwendeman, E. Rogers**
Wave breaking turbulence and the dissipation of wave energy
- 09.30 – 10.00 **Peter Nielsen, Mohammad Olfateh, David P Callaghan, Tom E Baldock**
Insights from wave theory with wave coherent air pressure on the surface
- 10.00 – 10.30 **Luigi Cavaleri, Luciana Bertotti, Jean-Raymond Bidlot**
Waving in the rain
- 10.30 – 11.00 *Coffee Break*

Measurements – Chair: Yuliya Troiskaya

- 11.00 – 11.30 **Saleh Abdalla, Peter Janssen, Jean-Raymond Bidlot**
Error estimation of altimeter wind speed and significant wave height
- 11.30 – 12.00 **R.E. Jensen, V.R. Swail, T.J. Hesser**
Can we track climate variation in measured wave data?
- 12.00 – 12.30 **I.R. Young, A.V. Babanin, S. Zieger**
The decay rate of ocean swell observed by altimeter
- 12.30-13.00 The ancient art of navigation (**Gerbrant van Vledder** – a little entertainment)
- 13.00 – 14.00 *Lunch Break*

Modelling – Chair: Richard Gorman

- 14.00 – 14.30 **Oyvind Breivik, Jean Bidlot, Peter A.E.M. Janssen**
Approximate Stokes drift profiles in deep water
- 14.30 – 15.00 **George Mellor**
A combined derivation of the integral and differential, coupled wave-current equations
- 15.00 – 15.30 **Jean-Raymond Bidlot**
A fully coupled system for atmosphere waves oceans and sea ice
- 15.30 – 16.00 *Coffee Break*

Theory – Chair: Fabrice Ardhuin

- 16.00 – 16.30 **Vladimir E. Zakharov, Sergei I. Badulin, Paul Hwang, Guillemette Caulliez**
Universality of sea wave growth and its physical roots
- 16.30 – 17.100 **Yaron Toledo, Jacoo Groeneweg, Marcel van Gent, Joana van Nieuwkoop**
Nonlinear broadening of near-shore wave spectra
- 17.00 – 17.30 *Visit to the Computer Room*
- 19.30-- *Dinner at "Moderation"*

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Thursday, 12 June 2014

Modelling – Chair: Erick Rogers

- 09.00 – 09.30 **Richard Gorman**
Wavewatch on an adaptive grid
- 09.30 – 10.00 **Doug Cresswell, Lluís Via Estrem**
The search for unbiased estimates of extreme wave conditions from numerical model simulations
- 10.00 – 10.30 **Yalin Fan, Erick Rogers**
Possible connection between Southern Ocean swells and ENSO and Indian Ocean dipole
- 10.30 – 11.00 *Coffee break*

Measurements – Chair: Gerbrant van Vledder

- 11.00 – 11.30 **Yuliya Troitskaya, Daniil Sergeev, Vladislav Papko, Georgy Baidakov, Maxim Vdovin, Alexander Kandaurov, Dmitry Zenkovich, Alexandra Kuznetsova**
Investigation of wind-wave interaction in the atmospheric boundary layer over a reservoir: field measurements and theoretical modelling
- 11.30 – 12.00 **Seth Zippel, Jim Thomson**
Wave breaking at a tidal inlet: shoals, currents and winds
- 12.00 – 13.00 **Poster Session**
- 13.00 – 14.00 *Lunch Break*
- 14.00 – 15.30 **Open Discussion**
- 15.30 – 16.00 *Coffee Break*

Measurements – Chair: Saleh Abdalla

- 16.00 – 16.30 **Fabien Leckler, Fabrice Ardhuin, Alvis Benetazzo, Francesco Fedele, Filippo Bergamasco, Vladimir Dulov**
Space-time properties of wind-waves: a new look at directional wave distributions
- 16.30 – 17.00 **Guillermo Gallego, Ping-Chang Shih, Alvis Benetazzo, Anthony Yezzi, Francesco Fedele**
Space-time ocean wave measurement using variational stereo vision systems
- 17.00 – 17.30 **Behnam Shabani, Peter Nielsen, Tom Baldock**
Wind stress and drag coefficients on surf zone waves
- 17.30 **Meeting Closed**