

# 1st International Workshop on Waves, Storm Surges and Coastal Hazards

## Sunday September 10

6:00 - 8:00 p.m. Workshop Registration Desk Open at Hilton Hotel

## Monday September 11

7:30 - 8:30 a.m. Workshop Registration Desk Open

8:30 a.m. Welcome and Introduction Prof Ed Hill OBE Executive Director NOC, Prof Kevin Horsburgh NOC

Session A: Wave Measurement -1

### Chair: Val Swail

**A1** *Quantifying Wave Measurement Differences in Historical and Present Wave Buoy Systems*

8:50 a.m. R.E. Jensen, V. Swail, R.H. Bouchard, B. Bradshaw and T.J. Hesser

Presenter: Jensen

**A2** *Field Evaluation of the Wave Module for NDBC's New Self-Contained Ocean Observing Payload (SCOOP)*

9:10 a.m. Richard Bouchard

Presenter: Bouchard

**A3** *Correcting for Changes in the NDBC Wave Records of the United States*

9:30 a.m. Elizabeth Livermont

Presenter: Livermont

9:50 a.m. Break

Session B: Wave Measurement - 2

### Chair: Robert Jensen

**B1** *Spectral shape parameters in storm events from different data sources*

10:30 a.m. Anne Karin Magnusson

Presenter: Magnusson

**B2** *Open Ocean Storm Waves in the Arctic*

10:50 a.m. Takuji Waseda

Presenter: Waseda

**B3** *A project of concrete stabilized spar buoy for monitoring near-shore environment*

11:10 a.m. Sergei I. Badulin, Vladislav V. Vershinin, Andrey G. Zatsepin, Dmitry V. Ivonin, Dmitry G. Levchenko, Alexander G. Ostrovskii and Leopold I. Lobkovsky

Presenter: Badulin

**B4** *Measuring the 'First Five' with HF radar*

11:30 a.m. Lucy R Wyatt

Presenter: Wyatt

**B5** *The use and limitations of satellite remote sensing for the measurement of wind speed and wave height*

11:50 a.m. Ian Young  
Presenter: Young

12:10 p.m. Lunch

Session C: Wave Design Criteria

**Chair: Andrew Cox**

- C1** *Wave height and Crest distribution in the North Sea*  
1:30 p.m. Børge Kvingedal  
Presenter: Kvingedal
- C2** *Estimating the directional spreading within surface water waves*  
1:50 p.m. Yannis Karmpadakis  
Presenter: Karmpadakis
- C3** *Derivation of extreme wave and water level extremes using covariate extreme value analysis*  
2:10 p.m. Graham Feld  
Presenter: Feld
- C4** *Evaluation of design waves considering climate change*  
2:30 p.m. P Satyavath, E Roshin, Prerna Bansal, Shreyas Bhat, Pooja Jain and M C Deo  
Presenter: Deo

2:50 p.m. Break and Poster Session

Session D: Observations and analysis of wave impacts

**Chair: Nadao Kohno**

- D1** *Wind Wave Footprint of Tropical Cyclones based on satellite and buoy data*  
3:50 p.m. F.J. Méndez, L. Cagigal, A. Rueda and J.A.A. Antolínez  
Presenter: Mendez
- D2** *Spatial-Temporal Changes of Ocean Waves Generated by Explosive Cyclones*  
4:10 p.m. Yuki Kita  
Presenter: Kita
- D3** *Wave predictions from Remotely Sensed Bathymetry in the FRF Coastal Model Test Bed*  
4:30 p.m. Spicer Bak  
Presenter: Bak
- D4** *Impact of wind waves on the air-sea momentum fluxes for different wind and sea state conditions*  
4:50 p.m. Joanna Staneva, Oliver Krueger, Arno Behrens, Jean Bidlot and Øyvind Breivik  
Presenter: Staneva
- D5** *Numerical study of the wind waves effect on air-sea fluxes in the Yellow Sea during the cold wave events*  
5:10 p.m. Jianhong Wang, Jialin Shi, Chunsheng Miao, Mo Peng and Jianmin Sheng  
Presenter: Wang

5:30 p.m. Sessions end for day

**6:30 - 10:00 p.m. Icebreaker –  
Merseyside Maritime Museum Albert Dock**

## Tuesday September 12

Session E: Storm Surge Modelling

Chair: Joannes Westerink

**E1** *Sensitivity of tropical cyclone extremes to surge simulation storm parameter resolution*

8:30 a.m. Jennifer L. Irish, Donald T. Resio and Taylor Asher  
Presenter: Irish

**E2** *The effect of high resolution modelling on storm surge forecasts*

8:50 a.m. Hans de Vries  
Presenter: de Vries

**E3** *The effect of global atmospheric model spatial resolution on tropical cyclone storm surge representation*

9:10 a.m. N. Bloemendaal, S. Muis, R. Haarsma, M. Verlaan, H. de Moel, P.Ward and J.C.J.H. Aerts  
Presenter: Bloemendaal

**E4** *A global prediction system for tides and surges*

9:30 a.m. Tsubasa Kodaira  
Presenter: Kodaira

9:50 a.m. Break and Poster Session

Session F: Advances in storm surge forecasting

Chair: Hans de Vries

**F1** *Storm surge under varying ice coverages along Alaska's Bering and Chukchi coasts*

10:50 a.m. Joannes J. Westerink, Brian Joyce, Robert Grumbine, Andre van der Westhuysen, Jesse Feyen, William Pringle and Dam Wirasaet  
Presenter: Westerink

**F2** *The importance of vertical structure to open-coast surges and its incorporation into depth averaged models*

11:10 a.m. Amanda Tritinger  
Presenter: Tritinger

**F3** *Improving North Sea Storm Surge Forecasting Using Data Assimilation*

11:30 a.m. David Byrne  
Presenter: Byrne

**F4** *Development and evaluation of storm surge warning system in Taiwan*

11:50 a.m. Mei-Ying Lin, Ming-Da Chiou, Chih-Ying Chen, Hao-Yuan Cheng, Wen-Chen Liu and Wen-Yih Sun  
Presenter: Lin

12:10 p.m. Lunch

Session G: Storm Surge Operational Forecasting

Chair: Diana Greenslade

**G1** *The UK's next generation operational storm surge forecast*

1:30 p.m. Clare O'Neill

Presenter: O'Neill

**G2** [\*The Next Generation's Storm Surge Prediction System in Japan Meteorological Agency\*](#)

1:50 p.m. Hiroshi Hasegawa, Nadao Kohno, Masakazu Higaki and Masaki Itoh

Presenter: Hasegawa

**G3** *Modeling storm surges with HYCOM (2D) to improve the French warning system*

2:10 p.m. Audrey Pasquet

Presenter: Pasquet

**G4** *Forecasting exceedance probabilities of extreme sea level events based on ensemble forecasts*

2:30 p.m. Jani Särkkä, Laura Tuomi and Antti Kangas

Presenter: Särkkä

2:50 p.m. [Break and Poster Session](#)

Session H: Coastal hazard forecasting

**Chair: Jane Smith**

**H1** *Lessons learnt from examining 100 years of coastal flood events around the UK*

3:50 p.m. Ivan Haigh

Presenter: Haigh

**H2** *Coupling of Wave and Hydrodynamic Models for Predicting Coastal Inundation: A Case study in Jakarta and Semarang*

4:10 p.m. Andri Ramdhani, Andi Eka Sakya, Nelly Florida Riama, Bayu Edo Pratama and Dava Amrina

Presenter: Riama

**H3** *Operational Storm Surge Forecast Systems Development at the United States National Ocean Service*

4:30 p.m. Sergey Vinogradov, Edward Myers, Yuji Funakoshi, Jaime Calzada-Marrero and Saeed Moghimi

Presenter: Vinogradov

**H4** *An operational coastal sea level forecasting system*

4:50 p.m. Diana Greenslade

Presenter: Greenslade

**H5** *Application of the Coastal Storm Modeling System to the Texas Coast*

5:10 p.m. Chris Massey

Presenter: Massey

5:30 p.m. Sessions end for day

**Wednesday September 13**

Session I: Wave models and forecasting

**Chair: Andrew Saulter**

**I1** [\*Applications of the spherical multiple-cell grid in ocean surface wave models\*](#)

8:30 a.m. Jian-Guo Li and Andrew Saulter

Presenter: Li

**I2** *Evaluation of Unstructured WAVEWATCH III for Nearshore Application*

8:50 a.m. Jane McKee Smith

Presenter: Smith

**I3** *Wave forecasting for the Marginal Ice Zone*

9:10 a.m. Erick Rogers

Presenter: Rogers

**I4** *On the development of an operational wave forecast system for the Korean East Coast*

9:30 a.m. Sofia Caires, Jinah Kim, Jacco Groeneweg and Jeseon Yoo

Presenter: Caires

9:50 a.m. Break and Poster Session

Session J: Wave Forecast 1

**Chair: Jean Bidlot**

**J1** *Development of an ensemble wave forecast system*

10:50 a.m. Stefan Zieger and Diana Greenslade

Presenter: Greenslade

**J2** *Long-Range Deterministic and Ensemble Global Wave Prediction Systems*

11:10 a.m. N.B. Bernier, B. Pouliot, S. Peel, P. Pellerin, H. Alves and A. Chawla

Presenter: Bernier

**J3** *The upgraded french operational coastal wave model with sea level and surface currents forcings*

11:30 a.m. Alice Dalphinnet

Presenter: Dalphinnet

**J4** *Development and Validation of the Regional Wave Prediction System (RWPS)*

11:50 a.m. Roberto Padilla-Hernandez, Arun Chawla, Andre van der Westhuysen, Jeffrey Lewitsky, Craig Mattoks, Mark DeMaria, Hugh Cobb and Douglas Gaer

Presenter: Padilla

12:10 p.m. Lunch

Session K: Wave Forecast 2

**Chair: Oyvind Breivik**

**K1** *Process and resolution impacts on UK coastal wave predictions from operational global-regional wave models*

1:30 p.m. Andrew Saulter, Chris Bunney, Jian-Guo Li and Tamzin Palmer

Presenter: Saulter

**K2** *New information on crossing waves of JMA*

1:50 p.m. Nadao Kohno

Presenter: Kohno

**K3** *The impact of combined assimilation of altimeters data and wave spectra from S-1A and S-1B in the operational model MFWAM*

2:10 p.m. Lotfi Aouf

Presenter: Aouf

**K4** *Modelling the Impact of Squall on Wind Waves*

2:30 p.m. Victor Shrira and Sergei Annenkov

Presenter: Shrira

2:50 p.m. Break and Poster Session

Session L: Wave Theory

**Chair: Chris Bender**

- L1** *Evolution of Wave Spectra in Shallow Water*  
3:50 p.m. Donald Resio  
Presenter: Resio
- L2** *Highly Nonlinear Extreme Waves in Currituck Sound: Interpretation in Terms of Highly Dense Breather Turbulence in a Random Wave*  
4:10 p.m. Alfred R. Osborne, Donald T. Resio, Andrea Costa, Sonia Ponce de León and Elisabetta Chirivì  
Presenter: Osborne
- L3** *The Role of Nonlinear Interactions in the Evolution of Wind Wave Spectra at Different Scales*  
4:30 p.m. Dorukhan Ardag  
Presenter: Ardag
- L4** *Quantification of the role of quadruplet interactions on wave model performance*  
4:50 p.m. Gerbrant Van Vledder  
Presenter: Van Vledder

5:10 p.m. Sessions end for day

7:00 p.m. Gala Dinner The Royal Liver Building Liverpool

**Thursday September 14**

Session M: Storm Surge Climate

**Chair: Kevin Horsburgh**

- M1** *Estimating past and recent extreme wave and surge conditions in the southwestern Baltic Sea.*  
8:30 a.m. Nikolaus Groll, Lidia Gaslikova and Ralf Weisse  
Presenter: Groll
- M2** *Contribution of external surges to the water levels in South-Eastern North Sea.*  
8:50 a.m. L. Gaslikova, I. Grabemann and R. Weisse  
Presenter: Gaslikova
- M3** *Assessing extreme sea levels due to tropical cyclones in the Atlantic basin*  
9:10 a.m. Sanne Muis, Ning Lin, Martin Verlaan, Hessel C. Winsemius, Philip J. Ward and Jeroen C.J.H. Aerts  
Presenter: Muis
- M4** *Assessing Storm Tide Hazard for the North-West Coast of Australia using an Integrated High-Resolution Model System*  
9:30 a.m. Jim Churchill, David Taylor, Dr. Joanna M. Burston and Jarrod Dent  
Presenter: Churchill

9:50 a.m. Break and Poster Session

Session N: Storm surge case studies in a changing climate

**Chair: Don Resio**

- N1** *Simulations of Hurricane Matthew Water Levels and Waves; Comparisons to Measurements and Examination of Shifted Tracks*  
 10:40 a.m. Christopher Bender  
 Presenter: Bender
- N2** *An integrated multiscale model system for coastal flooding forecasts at Northeastern United States*  
 11:00 a.m. Dongmei Xie, Qingping Zou, Anthony Mignone and John Cannon  
 Presenter: Zou
- N3** *Storm surge hindcasting using a fully coupled model of surge and wave - Case study of Typhoon Haiyan storm surge*  
 11:20 a.m. Sooyoul Kim  
 Presenter: Kim
- N4** *Long-Term Impact Assessment of Storm Surge based on Japanese Mega-Ensemble Projection (d4PDF) using 60 km AGCM*  
 11:40 a.m. Nobuhito Mori  
 Presenter: Mori
- N5** *Future Change Storm Surge based on Multi-Scenario and Multi-Regional Climate Model Ensemble Experiments*  
 12:00 p.m. Junichi Ninomiya  
 Presenter: Ninomiya

12:20 p.m. Lunch

Session O: Climate change and coastal flood risk

**Chair: Nobuhito Mori**

- O1** *Science-based tools for coastal adaptation to rising sea level*  
 1:30 p.m. Jenny Brown  
 Presenter: Brown
- O2** *Predicting present and future coastal flood risk: north east Wales case study*  
 1:50 p.m. Fay Fishford  
 Presenter: Fishford
- O3** *Statistical approaches to assess climate change coastal impacts*  
 2:10 p.m. P. Camus, C. Izaguirre, A. Tomás, I. Losada, M. Menéndez and J. Pérez  
 Presenter: Camus
- O4** *A Coastal Storm Modeling System (CoSMoS) for determination of flood hazards along a high energy coast in response to sea level rise*  
 2:30 p.m. Li Erikson  
 Presenter: Erikson
- O5** *Extreme coastal wave energy fluxes: projected global changes*  
 2:50 p.m. Lorenzo Mentaschi  
 Presenter: Mentaschi

3:10 p.m. Break

Session Q: Extreme water levels at the coast

**Chair: Jennifer Irish**

**Q1** *A multivariate statistical retrospective of a number of high-impact coastal storm events in the southern hemisphere*

3:40 p.m. Ron Hoeke and Mark Hemer  
Presenter: Hemer

**Q2** *Sensitivity of dynamically coupled wave-tide modelling to spatial resolution*

4:00 p.m. Matt Lewis  
Presenter: Lewis

**Q3** *Spatial variability in extreme water levels in a hypertidal estuary*

4:20 p.m. Charlotte Lyddon  
Presenter: Lyddon

**Q4** *Meteotsunami solibores and lone solitons on Atchafalaya shelf, Louisiana*

4:40 p.m. Alex Sheremet  
Presenter: Sheremet

**Q5** *Towards understanding and operational early warning of the Adriatic meteotsunamis: Project MESSI*

5:00 p.m. Ivica Vilibic  
Presenter: Vilibic

5:20 p.m. Sessions end for day

## Friday September 15

Session R: Wave Hindcast

**Chair: Fernando Mendez**

**R1** *A consistent Climate Forecast System Reanalysis wave hindcast*

8:30 a.m. Justin Stopa  
Presenter: Stopa

**R2** *NORA10EI: Toward a very high-resolution atmospheric and wave hindcast archive for the Nordic Seas*

8:50 a.m. Oyvind Breivik  
Presenter: Breivik

**R3** *The GOW2 global wave dataset for coastal applications*

9:10 a.m. Melisa Menendez  
Presenter: Menendez

**R4** *Model optimisation with the cylc workflow engine: application to wave hindcast calibration*

9:30 p.m. Richard Gorman  
Presenter: Gorman

**R5** *Comparison of directional wave spectrum hindcast to the buoy data measured near the typhoon path*

9:50 a.m. Taerim Kim  
Presenter: Kim

10:10 a.m. Break

Session S: Wave Climate

**Chair: Xiaolan Wang**



- S1** *Global Ocean Wave Statistics from VOS data: a new dynamical dataset and associated atlas*  
 10:40 a.m. Victoria Grigorieva  
 Presenter: Grigorieva
- S2** *New Zealand wave climate variability based on weather patterns*  
 11:00 a.m. Ana Rueda, Laura Cagigal, Jose A. A. Antolínez, Giovanni Coco, Joao Albuquerque and Fernando Méndez  
 Presenter: Rueda
- S3** *Storm clustering in the Mediterranean Sea*  
 11:20 a.m. Giovanni Besio  
 Presenter: Besio
- S4** *Spatial characterization of wave storms at the NW Mediterranean Sea*  
 11:40 a.m. Jue Lin-Ye, Agustín Sánchez-Arcilla, Elena Pallarés and Manuel Espino  
 Presenter: Jue Lin-Ye
- S5** *The Status of COWCLIP – Achievements to date and what’s still required*  
 12:00 p.m. Mark Hemer, Xiaolan Wang and The COWCLIP group  
 Presenter: Hemer

12:20 p.m. Lunch

Session T: Wave Climate Change

**Chair: Mark Hemer**

- T1** *Possible future regional wave climate in the Arctic Ocean*  
 1:30 p.m. Mercè Casas-Prat, Xiaolan L. Wang and Neil Swart  
 Presenter: Wang
- T2** *Identifying the most extreme storms for wave impact on the UK coast*  
 1:50 p.m. Judith Wolf  
 Presenter: Wolf
- T3** *Changes in extreme wave conditions of North West Europe, in response to high-end climate scenarios*  
 2:10 p.m. Lucy Bricheno and Judith Wolf  
 Presenter: Bricheno
- T4** *Mid Twenty-First Century Wave Climate Changes in the North Atlantic*  
 2:30 p.m. Gil Lemos, Alvaro Semedo, Mikhail Dobrynin, Arno Behrens, Joanna Staneva and Pedro Miranda  
 Presenter: Lemos
- T5** *Long term impacts of ocean wave-dependent roughness on climate systems by coupled atmospheric global climate-wave model*  
 2:50 p.m. Tomoya Shimura  
 Presenter: Shimura

3:10 p.m. Closing Remarks

3:30 p.m. Workshop Ends

## Session P: Posters - sessions Monday, Tuesday, Wednesday

- P1** *An assessment of wave climate variability based on ERA20-CM and an EC-Earth (CMIP5) forced WAM ensemble*  
Ole Johan Aarnes  
Presenter: Aarnes
- P2** *The waves at the Mulberry Harbours in the Second World War*  
Thomas Adcock  
Presenter: Adcock
- P3** *Improving nearshore wave guidance at the North American Great Lakes Wave System*  
Jose-Henrique G. M. Alves, Aron Roland and Fabrice Ardhuin  
Presenter: Alves
- P4** *Multiscale climate-based hybrid modelling of integrated beach erosion and flooding events*  
J. A. A. Antolínez, A. Rueda, D. Anderson, N. Cohn, F. J. Méndez and P. Ruggiero  
Presenter: Antolinez
- P5** *Wave height variability at scales under 100 km: the dominance of wave-current interactions*  
Fabrice Ardhuin  
Presenter: Ardhuin
- P6** *Wave and Storm Surge Forecasting System for Indian Ocean Region*  
T M Balakrishnan Nair, P. G. Remya, PLN Murty, K. G. Sandhya, R. Harikumar and P. Sirisha  
Presenter: Balakrishnan Nair
- P7** *CDIP Wave Observations During Hurricane Matthew*  
James Behrens  
Presenter: Behrens
- P8** *ECMWF ERA-5 wave data*  
Jean Bidlot  
Presenter: Bidlot
- P9** *Case of violent Central Adriatic windstorms: Southerly winds vs. famous Bora*  
Kata Botica  
Presenter: Botica
- P10** *Ocean-atmosphere coupled modelling for storm surge risk assessment in Bangladesh*  
Nabir Mamnun  
Presenter: Bricheno
- P11** *Comparison of present-climate global Stokes drift and projected changes*  
Ana Carrasco, Alvaro Semedo, Arno Behrens, Ralf Weisse, Øyvind Breivik, Øyvind Saetra and Kai Håkon Christensen  
Presenter: Carrasco
- P12** *Coastal flood forecasting in England: Helping people, businesses and the environment to be more resilient to coastal extremes*  
Susan Connolly, Deborah Cooper and Sue Manson  
Presenter: Connolly
- P13** *Tropical Cyclone Wind Field Analysis for Ocean Response Modeling: Hurricane Harvey (2017)*  
Andrew T. Cox, Brian T. Callahan, Michael Ferguson and Michael A. Morrone  
Presenter: Cox
- P14** *The Adriatic meteotsunami early warning system: modelling component*  
Clea Denamiel  
Presenter: Denamiel
- P15** *Waves and currents in the Southern Ocean*

- Tom Durrant, Peter McComb, Henrique Rapizo and Rafael Guedes  
Presenter: Durrant
- P16** *Observing and simulating the wave conditions in Sulaffjord for the E39 project of the Norwegian Public Roads Administration*  
Birgitte Rugaard Furevik, Ole Johan Aarnes, Lasse Lønseth, Hálf dán Ágústsson, Øyvind Byrkjedal and Kjeller Vindteknikk  
Presenter: Furevik
- P17** *Coastal flooding in Rovinj: the case of February 10th 2016*  
Lidija Fustar  
Presenter: Fustar
- P18** *Calibration WAVEWATCH III source term parameters in Bohai Sea*  
Zhiyi Gao  
Presenter: Gao
- P19** *A step forward in the implementation of natural solutions for coastal protection in the Chesapeake Bay*  
Juan Luis Garzon Hervas  
Presenter: Garzon Hervas
- P20** *Wind waves parameters of the Black Sea based on various modelling experiments*  
Fedor Gippius  
Presenter: Gippius
- P21** *Optimising the Australian Wave Observation Network*  
Diana Greenslade  
Presenter: Greenslade
- P22** *A global skill assessment of spectral reconstructions from partitioned parameters*  
Mark Hemer  
Presenter: Hemer
- P23** *Future climate projections for coastal stressors in Australia: sea-level, storm-surge and waves*  
Mark Hemer  
Presenter: Hemer
- P24** *Wave Information Study Evaluation of Atlantic Hurricanes*  
Tyler Hesser  
Presenter: Hesser
- P25** *Coastal currents modeling using coupled ocean-wave model considering wave-current interaction on random waves*  
Yuki Imai  
Presenter: Imai
- P26** *Effect of regional-scale coastal resolution on global estimates of tidal energy dissipation*  
Maialen Irazoqui Apecechea and Martin Verlaan  
Presenter: Irazoqui Apecechea
- P27** [Wave energy potential in the Northeast Atlantic: Impact of large-scale atmospheric oscillations](#)  
Jelena Janjic, Sarah Gallagher, Emily Gleeson and Frederic Dias  
Presenter: Janjic
- P28** *The North Sea 1200 Year Wave Study (NS1200): A Climate Modelling Approach to Setting Offshore Design Criteria*  
Oliver Jones  
Presenter: Jones
- P29** *Evaluation of the MMD-JMA-MRI-III wave model using multiple model wind forcings*  
Mat Kamaruzaman  
Presenter: Kamaruzaman

- P30** *Spatio-temporal wave climate using nested numerical wave modeling in the northern Indian Ocean*  
Bahareh Kamranzad  
Presenter: Kamranzad
- P31** [\*Effects and influences of storm surge - Lessons learned from significant events\*](#)  
Anitha Karthik, R. Sean Smith and Naren Gupta  
Presenter: Karthik
- P32** *The Vulnerability of Indonesia's Indian Ocean Territory to Storm Swell and Sea-Level Rise*  
Jaya Kelvin  
Presenter: Kelvin
- P33** *Effects of the wave-induced forcing on a circulation model of the North and Baltic Sea*  
Oliver Krueger  
Presenter: Krueger
- P34** *Illustration of wave-related effects on the ocean from local to global scales*  
Stephane Law Chune  
Presenter: Law Chune
- P35** *Storm surge forecast and mitigation in China*  
Liu Qiuxing and Dong Jianxi  
Presenter: Liu
- P36** *The CMEMS IBI-MFC Wave Forecasting system: a new operational Copernicus-Marine Environment Monitoring Service in the IBI area*  
C. Toledano, E. Barrera, R. Rainaud, A. Dalphinnet, L. Aouf, A. Amo-Baladrón, P. Lorente, P. Rey, M. Alfonso, J.M. García Valdecasas, M.G. Sotillo and E. Álvarez Fanjul  
Presenter: Lozano
- P37** *U.S. Army Corps of Engineer's Operational Nearshore Wave Modeling: Bridging the Gap between Deep-Water and High-Fidelity Numerical Models*  
Matt Malej  
Presenter: Malej
- P38** *Effects of spectral nudging in WRF on wind wave simulations in WAVEWATCH III*  
Margarita Markina  
Presenter: Markina
- P39** *Longshore currents: from shear to hydrodynamic formulation*  
Angel Martinez Ferrer  
Presenter: Martinez Ferrer
- P40** *The set-down and set-up of directionally spread surface gravity wave groups*  
Ton S. van den Bremer and Mark McAllister  
Presenter: McAllister
- P41** *Climate variability of sea surface dynamics in Santa Catarina, Brazil*  
M. Menéndez, P. Camus, A. Acevedo, A. Espejo, A. Cid, A. Toimil and I. J. Losada  
Presenter: Menendez
- P42** *Estimating extreme water level events in the South-western Baltic Sea by means of statistical downscaling*  
Elke Meyer  
Presenter: Meyer
- P43** *Mud effects on wave propagation over the French Guiana coast*  
Héloïse Michaud, Céline Jacq, Olivier Morio, Erwan Gensac, Caroline Bru, Sophie Casitas and Audrey Pasquet  
Presenter: Michaud
- P44** *Variability in the wave energy resource and potential power production on Australia's southeast coast*

- Joao Morim do Nascimento  
Presenter: Morim do Nascimento
- P45** *The wave-current interaction in the Gulf of Mexico: an assessment of the coupled system COAWST*  
Aimie Moulin  
Presenter: Moulin
- P46** *Canadian Coastal Flood Risk Assessment Guidelines for Improved Climate Resilience*  
Enda Murphy  
Presenter: Murphy
- P47** *Effects of the wave-current interaction on the dynamics of the upper ocean layer under strong wind conditions*  
Pedro Osuna  
Presenter: Osuna
- P48** *Long wave runoff on the coasts of narrow bays*  
Efim Pelinovsky  
Presenter: Pelinovsky
- P49** *Spectral characterization of rogue seas using high resolution exact nonlinear interactions in Portugal*  
S. Ponce de Leon, A. Osborne and C. Guedes Soares  
Presenter: Ponce de Leon
- P50** *On another concept of Hasselmann equation source terms*  
Vladimir Zakharov, Don Resio and Andrei Pushkarev  
Presenter: Pushkarev
- P51** *Quantifying the Role of Natural and Nature-Based Features in Coastal Resilience with Sea Level Rise and Marsh Migration*  
Ali Mohammad Rezaie  
Presenter: Rezaie
- P52** *Assessment of the Mexican coastal wave energy distribution*  
Jose-Antonio Salinas  
Presenter: Salinas
- P53** *Withdrawn*
- P54** *Evaluation of a CMIP5 Derived Single-Model, Single-Forcing and Single-Scenario Dynamical Global Wave Climate Model Ensemble*  
Alvaro Semedo, Gil Lemos, Mikhail Dobrynin, Justin Stopa, Arno Behrens, Hylke de Vries, Joanna Staneva, Andreas Sterl, Mark Hemer, Jean-Raymond Bidlot, Øyvind Breivik and Pedro Miranda  
Presenter: Semedo
- P55** *Performance appraisal of high resolution regional model*  
Mutiat Sholademi  
Presenter: Sholademi
- P56** *Intense soliton-like groups in laboratory experiments and numerical simulations*  
Alexey Slunyaev  
Presenter: Slunyaev
- P57** *CMIP5 derived dynamical global wave climate simulations versus altimeter observation*  
Justin Stopa  
Presenter: Stopa
- P58** *Wave data available in the Copernicus Service In Situ TAC*  
Stéphane Tarot  
Presenter: Tarot
- P59** *Rogue waves in the southern North Sea*  
Ina Teutsch

- Presenter: Teutsch
- P60** *The US COASTAL Act*  
Hendrik L. Tolman, Nicole P. Kurkowski, A.J. Van der Westhuysen, S. Moghimi, A. Abdolali, Z. Ma, S. V. Vinogradov, J. Meixner, Y. Funakoshi, E. Myres, A. Chawla, A. Mehra and F. Liu  
Presenter: Tolman
- P61** *The US NWS Strategic Modeling Plans*  
Hendrik L. Tolman  
Presenter: Tolman
- P62** *Multivariate extreme value modelling of waves, winds and sea levels*  
Nigel Tozer  
Presenter: Tozer
- P63** *Forecasting high and extreme sea states in the Baltic Sea*  
Laura Tuomi  
Presenter: Tuomi
- P64** *Characterising extreme sea state severity using absolute spatial dependence*  
Ryota Wada  
Presenter: Wada
- P65** *Prediction of Beach Recovery Processes at the USACE Field Research Facility Duck, NC*  
Nikole Ward  
Presenter: Ward
- P66** *Modelling storm surges with multi-scale finite element methods*  
Simon Warder  
Presenter: Warder
- P67** *Ocean wave forecasting system for the Northern Sea Route*  
Adrean Webb  
Presenter: Webb
- P68** *Storm surges in the western Baltic Sea*  
Ralf Weisse  
Presenter: Weisse
- P69** *Current Impacts on Wave Climate along the Sheltered Coasts of Barbados*  
Derek Williamson  
Presenter: Williamson
- P70** *North Sea response to the impact of large-scale tidal dynamics*  
Xing Yi, Elke Meyer and Ralf Weisse  
Presenter: Yi
- P71** *A case study of using the multi-model ensemble of wave forecasts*  
A. Zhong, Lixin Qi, Robert Greenwood and Neal Moodie  
Presenter: Zhong