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.  
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
**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
Wave forecasting for the Marginal Ice Zone
Presenter: Smith
9:10 a.m.

On the development of an operational wave forecast system for the Korean East Coast
Presenter: Rogers
9:30 a.m.

9:50 a.m. Break and Poster Session

Session J: Wave Forecast 1

Chair: Jean Bidlot

Development of an ensemble wave forecast system
Stefan Zieger and Diana Greenslade
Presenter: Greenslade
10:50 a.m.

Long-Range Deterministic and Ensemble Global Wave Prediction Systems
N.B. Bernier, B. Pouliot, S. Peel, P. Pellerin, H. Alves and A. Chawla
Presenter: Bernier
11:10 a.m.

The upgraded french operational coastal wave model with sea level and surface currents forcings
Alice Dalphinet
Presenter: Dalphinet
11:30 a.m.

Development and Validation of the Regional Wave Prediction System (RWPS)
Roberto Padilla-Hernandez, Arun Chawla, Andre van der Westhuysen, Jeffrey Lewitsky, Craig Mattoks, Mark DeMaria, Hugh Cobb and Douglas Gaer
Presenter: Padilla
11:50 a.m.

12:10 p.m. Lunch

Session K: Wave Forecast 2

Chair: Oyvind Breivik

Process and resolution impacts on UK coastal wave predictions from operational global-regional wave models
Andrew Saulter, Chris Bunney, Jian-Guo Li and Tamzin Palmer
Presenter: Saulter
1:30 p.m.

New information on crossing waves of JMA
Nadao Kohno
Presenter: Kohno
1:50 p.m.

The impact of combined assimilation of altimeters data and wave spectra from S-1A and S-1B in the operational model MFWAM
Lotfi Aouf
Presenter: Aouf
2:10 p.m.

Modelling the Impact of Squall on Wind Waves
Victor Shrira and Sergei Annenkov
Presenter: Shrira
2:30 p.m.

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 Chirivi
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
Simulations of Hurricane Matthew Water Levels and Waves; Comparisons to Measurements and Examination of Shifted Tracks
10:40 a.m.
Christopher Bender
Presenter: Bender

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

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

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

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

Science-based tools for coastal adaptation to rising sea level
1:30 p.m.
Jenny Brown
Presenter: Brown

Predicting present and future coastal flood risk: north east Wales case study
1:50 p.m.
Fay Fishford
Presenter: Fishford

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

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

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, Lousiana
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 Vilbic
Presenter: Vilbic

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 NORA10E1: 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
Global Ocean Wave Statistics from VOS data: a new dynamical dataset and associated atlas
10:40 a.m. Victoria Grigorieva
Presenter: Grigorieva

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

Storm clustering in the Mediterranean Sea
11:20 a.m. Giovanni Besio
Presenter: Besio

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: Sánchez-Arcilla

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

Possible future regional wave climate in the Arctic Ocean
1:30 p.m. Mercè Casas-Prat, Xiaolan L. Wang and Neil Swart
Presenter: Wang

Identifying the most extreme storms for wave impact on the UK coast
1:50 p.m. Judith Wolf
Presenter: Wolf

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

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

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: Antolínez

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 Sulafjord for the E39 project of the Norwegian Public Roads Administration
Birgitte Rugeard Furevik, Ole Johan Aarnes, Lasse Lønseth, Hálfdán 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. Dalphinet, 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 runup 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**  
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**  
CIMP5 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
The US COASTAL Act
Presenter: Tolman

The US NWS Strategic Modeling Plans
Hendrik L. Tolman
Presenter: Tolman

Multivariate extreme value modelling of waves, winds and sea levels
Nigel Tozer
Presenter: Tozer

Forecasting high and extreme sea states in the Baltic Sea
Laura Tuomi
Presenter: Tuomi

Characterising extreme sea state severity using absolute spatial dependence
Ryota Wada
Presenter: Wada

Prediction of Beach Recovery Processes at the USACE Field Research Facility Duck, NC
Nikole Ward
Presenter: Ward

Modelling storm surges with multi-scale finite element methods
Simon Warder
Presenter: Warder

Ocean wave forecasting system for the Northern Sea Route
Adrean Webb
Presenter: Webb

Storm surges in the western Baltic Sea
Ralf Weisse
Presenter: Weisse

Current Impacts on Wave Climate along the Sheltered Coasts of Barbados
Derek Williamson
Presenter: Williamson

North Sea response to the impact of large-scale tidal dynamics
Xing Yi, Elke Meyer and Ralf Weisse
Presenter: Yi

A case study of using the multi-model ensemble of wave forecasts
A. Zhong, Lixin Qi, Robert Greenwood and Neal Moodie
Presenter: Zhong