

*Sunday November 10*

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

**6:30 - 10:00 p.m. Icebreaker - Sheraton Hotel**

*Monday November 11*

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

**8:30 a.m. Welcome and Introduction**

**Session A: Vincent J. Cardone Special Session**

**Chair: Val Swail**

**A1 *Potential effects of storm size and shape on swell characteristics***

8:50 a.m. Donald Resio

Presenter: Resio

**A2 *The October 29, 2018 storm in Northern Italy – an exceptional event and its wave and surge modelling***

9:10 a.m. Luigi Cavaleri, M.Bajo, F.Barbariol, M.Bastianini, A.Benetazzo, L.Bertotti, J.Chiggiato, S.Davolio, C.Ferrarin, L.Magnusson, A.Papa, P.Pezzutto, A.Pomaro and G.Umgiesser

Presenter: Cavaleri

**A3 *A New Approach to Assessing Tropical Cyclone Wind and Pressure Fields***

9:30 a.m. James M. Done, Greg Holland and Ming Ge

Presenter: Holland

**A4 *Kinematic Analysis of Ocean Winds: Past, Present, and Future***

9:50 a.m. Andrew Cox

Presenter: Cox

**10:10 a.m. Break**

**Session B: Wave Measurement - 1**

**Chair: Kevin Ewans**

**B1 *The Legacy of FLOSSIE (Field Laboratory for Ocean Sea State Investigation and Experimentation) Evaluation of Wave Measurements Onboard a 6N NOMAD***

10:40 a.m. Robert E. Jensen, V. Swail, R.H. Bouchard, S.C. Dillon, C. Hall and S. DiNapoli

Presenter: Jensen

**B2 *Wave spectral shapes and parameters as measured by three different wave sensors.***

11:00 a.m. Anne Karin Magnusson, Robert E. Jensen and V. Swail

Presenter: Magnusson

**B3 *Further Study on the Accuracy of NDBC Wave Measurements and Their Possible Impact on Wave Climate Trends***

11:20 a.m. Richard H. Bouchard and Robert E. Jensen

Presenter: Bouchard

**B4 *Comparison of the performance and characteristics of MetOcean and TriAxys Wave Buoys.***

11:40 a.m. Jane Warne and Joel Cabrie

Presenter: Warne

## Session BB: Wave Modelling - 1

Chair: Gerbrandt van Vledder

**BB1** *Assessing the added value of using a Wave Boundary Layer Model in a coupled wave-atmosphere model system*

10:40 a.m. Anne Wiese, Jana Fischereit, Xiaoli Guo Larsén and Joanna Staneva  
Presenter: Wiese

**BB2** *Evaluation of ST6 physics in operational SWAN domains*

11:00 a.m. Rafael Guedes, Henrique Rapizo, Tom Durrant and Jorge Perez  
Presenter: Guedes

**BB3** *Determination of model accuracy and uncertainties during severe events using point observations, satellite data and model ensembles*

11:20 a.m. Ali Abdolali, Andre Van Der Westhuysen, Saeed Moghimi, Aron Roland, Zaizhong Ma, Avichal Mehra, Arun Chawla, Sergey Vinogradov, Edward Myers and Nicole Kurkowski  
Presenter: Abdolali

**BB4** *Deterministic wave prediction for directional sea-states in real-time using Artificial Neural Network*

11:40 a.m. Yun Zhi Law, Harrif Santo, Kian Yew Lim and Eng Soon Chan  
Presenter: Yun Zhi Law

**12:00 p.m. Lunch**

## Session C: Wave Measurement - 2

Chair: Anne Karin Magnusson

**C1** *On the concurrency of wave and crest height characteristics at two neighbouring wave buoys*

1:30 p.m. Ole Johan Aarnes, Birgitte Furevik, Anne Karin Magnusson, Odin Gramstad, Elzbieta Bitner-Gregersen and Harald Tholo  
Presenter: Aarnes

**C2** *A spectral description for extreme sea states offshore Denmark: Part I Power spectral density function*

1:50 p.m. Kevin Ewans, Hans Hansen and Allan Rod Zeeberg  
Presenter: Ewans

**C3** *Lagrangian Measurement of Waves by Buoys*

2:10 p.m. M.L. McAllister and T.S. van den Bremer  
Presenter: McAllister

**C4** *Innovations in low-cost metocean buoys for aerial deployments*

2:30 p.m. Pieter Smit and Tim Janssen  
Presenter: Smit

## Session CC: Storm Surge Hindcast

Chair: Kevin Horsburgh

**CC1** *Hindcasting Storm Surge and Overland Flooding at High Resolution using Delftd-3D Flexible Mesh: Case study - Xynthia Storm, France.*

1:30 p.m. Trang Minh Duong, Jeremy Bricker, Johan Reyns, Remi Meynadier, Bas Jonkman and Roshanka Ranasinghe  
Presenter: Duong

**CC2** *Hindcast of Typhoon Jebi (2018) storm surge, wave and flood using a coupled model of surge, wave, wave runup and overtopping*

1:50 p.m. Sooyoul Kim, Nobuhito Mori, Tetsuya Takemi, Yoko Shibutani, Tomohiro Yasuda, Sota Nakajo, Tomoya Shimura, Junichi Ninomiya and Hajime Mase  
Presenter: Kim Sooyoul

**CC3** ***Reconstruction of the record storm tide in March 1906 in the German Bight***  
2:10 p.m. Elke Meyer, Ralf Weisse, Birger Tinz and Thomas Möller  
Presenter: Meyer

**CC4** ***Observations and simulations of meteotsunamis in south-western Australia***  
2:30 p.m. Charitha Pattiaratchi  
Presenter: Pattiaratchi

## **2:50 p.m. Break and Poster Session**

### **Session D: Wave Measurement - 3**

**Chair: Robert Jensen**

**D1** ***CDIP Wave Observations and Coastal Inundation Forecasting***  
3:50 p.m. James Behrens, Eric Terrill, Mark Merrifield and Robert Jensen  
Presenter: Behrens

**D2** ***Several improvements in the methods for estimating directional spectra observed with a submerged Doppler-type directional wave meter***  
4:10 p.m. Noriaki Hashimoto  
Presenter: Hashimoto

**D3** ***Design of a Generation-to-Shoreline Monitoring Network using Drifting Wave Buoys***  
4:30 p.m. Sophia Merrifield, Tony DePaolo, Mark Otero, Allison Ho and Eric Terrill  
Presenter: Merrifield

**D4** ***Measurements of Wind and Waves using Coherent Marine Radars***  
4:50 p.m. J. Horstmann, R. Carrasco, J.C. Nieto Borge, J. Seemann and M. Streßer  
Presenter: Horstmann

**D5** ***Sentinel-1, WAVEWATCH III and buoy spectral comparisons in the Southern Ocean***  
5:10 p.m. Salman Khan, Emilio Echevarria and Mark Hemer  
Presenter: Khan

### **Session DD: Coastal Modelling**

**Chair: Jane McKee Smith**

**DD1** ***Extreme water levels in the Baltic Sea as a combination of different compounds.***  
3:50 p.m. Lidia Gaslikova, Nikolaus Groll and Ralf Weisse  
Presenter: Gaslikova

**DD2** ***SFINCS A fast model for predicting coastal flooding***  
4:10 p.m. Maarten van Ormondt, Ap van Dongeren, Tim Leijnse and Kees Nederhoff  
Presenter: van Ormondt

**DD3** ***A New Paradigm in Coastal and Nearshore Wave Modeling***  
4:30 p.m. Jeffrey Hanson, Rick Luettich and Brian Blanton  
Presenter: Hanson

**DD4** ***Force Globally, Flood Locally: Advances in High-Resolution Global Coastal Flood Modelling***  
4:50 p.m. William Pringle, Keith Roberts, Damrongsak Wirasaet, Maria Teresa Contreras Vargas, Joannes Westerink, Edward Myers, Saeed Moghimi and Sergey Vinogradov  
Presenter: Pringle

**DD5** ***Wave Overtopping in the City Scale Coupled Hydrodynamic/Hydraulic Numerical Inundation Model: CFAST***  
5:10 p.m. Julian G. O'Grady, Raymond C. Z. Cohen, Mahesh Prakash, Kathy L. McInnes and Ron K. Hoeke

## 5:30 p.m. Sessions end for day

*Tuesday November 12*

### Session E: Storm Surge Modelling - 1

**Chair: Don Resio**

**E1 *Multi-physics Coastal Storm Surge Modeling in Alaska in Highly Fractured Ice Scenarios***

8:30 a.m. Joannes Westerink and 18 others

Presenter: Westerink

**E2 *High-Fidelity Coastal Coupling of WAVEWATCH III and ADCIRC using an ESMF-based framework***

8:50 a.m. Andre van der Westhuysen, Saeed Moghimi, Ali Abdolali, Sergey Vinogradov, Zaizhong Ma and Edward Myers

Presenter: Van der Westhuysen

**E3 *Coastal hazards: coupling of ocean and atmosphere through a dynamic wave interface***

9:10 a.m. Joanna Staneva, Sebastian Grayek, Arno Behrens, Corinna Schrum and Marcel Ricker

Presenter: Staneva

**E4 *The Influence of the Vertical Current Structure on the Scaling of Wind and Wave Driven Surges in the Nearshore Region***

9:30 a.m. Amanda S. Tritinger and Donald T. Resio

Presenter: Tritinger

### Session EE: Waves and Sea Ice

**Chair: Alex Babanin**

**EE1 *New aspects of waves in ice – observations and idealized modeling.***

8:30 a.m. Johannes Gemmrich

Presenter: Gemmrich

**EE2 *Spectral modelling of ice-induced wave decay with dispersion relation sea ice models: comparisons and limitations***

8:50 a.m. Qingxiang Liu, W. Erick Rogers, Alexander V. Babanin, Jingkai Li and Changlong Guan

Presenter: Liu

**EE3 *Predictability of waves near marginal ice zones during R/V Mirai observational campaigns***

9:10 a.m. Takehiko Nose, Takuji Waseda, Tsubasa Kodaira, Jun Inoue and Kazutoshi Sato

Presenter: Nose

**EE4 *Evolution of Soliton Measurement and Modelling***

9:30 a.m. Steve Buchan and Kenji Shimizu

Presenter: Buchan

### 9:50 a.m. Break and Poster Session

### Session F: Storm Surge Climatology

**Chair: Charitha Pattiaratchi**

**F1 *Quantifying extreme sea level frequency changes and the emergence of tidal inundation in Australia.***

10:40 a.m. Ben Hague, Brad Murphy, David Jones and Andy Taylor

Presenter: Hague

**F2 *Storm tracks associated with extreme storm surges and coastal currents in Southern Australia***

11:00 a.m. Yasha Hetzel, Charitha Pattiaratchi and Simone Cosoli  
Presenter: Hetzel

**F3 *Statistical analysis of storm surge hazard on China coast***

11:20 a.m. Xiang Fu  
Presenter: Fu

**F4 *Estimating Global Extreme Sea Levels and the Resulting Impacts for the 21st Century***

11:40 a.m. Ebru Kirezci and Ian Young  
Presenter: Kirezci Ebru

**Session FF: Air-sea Interaction**

**Chair: Nobuhito Mori**

**FF1 *Refining Air-Sea Interactions Through Floating Wind Profilers***

10:40 a.m. Greg Williams  
Presenter: Williams

**FF2 *Laboratory study on air-sea CO2 exchange during wave breaking***

11:00 a.m. Shuo Li, Alexander Babanin, Dejun Dai and Shumin Jiang  
Presenter: Li Shuo

**FF3 *Investigation of the Impact of Ocean Waves on Development of Explosive Cyclone with a Coupled Model***

11:20 a.m. Yuki Kita and Takuji Waseda  
Presenter: Kita

**FF4 *Impact of estimation methods of drag coefficient at sea surface on typhoon Haiyan using high-resolution air-sea-wave coupled model***

11:40 a.m. Junichi Ninomiya, Nobuhito Mori and Tetsuya Takemi  
Presenter: Ninomiya

**12:00 p.m. Lunch**

**Session G: Rogue Waves**

**Chair: Al Osborne**

**G1 *Ocean Currents Trigger Rogue Waves***

1:30 p.m. Alessandro Toffoli, Guillaume Ducrozet and Takuji Waseda  
Presenter: Toffoli

**G2 *Rogue wave warning based on spectral wave forecasting***

1:50 p.m. Odin Gramstad, Elzbieta Bitner-Gregersen, Ole Johan Aarnes, Øyvind Breivik, Anne Karin Magnusson and Mika Malila  
Presenter: Gramstad

**G3 *Extreme wave events and sampling variability***

2:10 p.m. Elzbieta M. Bitner-Gregersen, Odin Gramstad, Anne Karin Magnusson and Mika Malila  
Presenter: Bitner-Gregersen

**G4 *Probability of Occurrence of Extreme Events in Directional JONSWAP Sea States***

2:30 p.m. C. Kirezci and A. V. Babanin  
Presenter: Kirezci Cagil

**Session GG: Storm Surge Operational Forecasting - 1**

**Chair: Diana Greenslade**

**GG1** *Development of a Storm Surge Forecasting and Warning System for the Philippines*  
1:30 p.m. Maria Cristina C. Uson, Paul Rivera, Cynthia P. Celebre and Cecilia A. Monteverde  
Presenter: Uson

**GG2** *Latest Developments to Improve Operational Storm Surge and Tide Operational Forecasting Systems at the U.S. National Ocean Service.*

1:50 p.m. Sergey Vinogradov, Edward Myers, Saeed Moghimi, Yuji Funakoshi and Jaime Calzada  
Presenter: Vinogradov

**GG3** *Coastal Flooding Risk Post Processing, Guidance to Assist Prediction Services*  
2:10 p.m. Devon Telford  
Presenter: Telford

**GG4** *Marine early warning system at NMEFC*  
2:30 p.m. Benxia Li  
Presenter: LI Benxia

## 2:50 p.m. Break and Poster Session

### Session H: Wave Theory - 1

Chair: Hendrik Tolman

**H1** *HF radar investigation of source terms in the Hasselmann equation*  
3:50 p.m. Stuart Anderson  
Presenter: Anderson

**H2** *Quantification of the central role of quadruplet wave interactions on wave model performance*

4:10 p.m. Gerbrant van Vledder  
Presenter: van Vledder

**H3** *The Unresolved Obstacles Source Term, application cases on regular and triangular meshes*

4:30 p.m. Lorenzo Mentaschi, Giovanni Besio, Michalis Vourdoukas and Luc Feyen  
Presenter: Mentaschi

**H4** *Scaling of the energy dissipation rate due to breaking deep-water surface waves*  
4:50 p.m. Nick Pizzo and W. Kendall Melville  
Presenter: Pizzo

**H5** *Nonlinear Ocean Waves Amplification (NOWA) in Straits: Surface Wind Waves Energy Pipelines in Fourier-Real Space*

5:10 p.m. Andrei Pushkarev and Vladimir Zakharov  
Presenter: Pushkarev

**H6** *Experiments on wind-waves in a laboratory tank and their implications for wind-wave modeling*

5:30 p.m. Lev Shemer  
Presenter: Shemer

### Session HH: Storm Surge Operational Forecasting - 2

Chair: Joannes Westerink

**HH1** *An ensemble storm surge forecast system for tropical cyclones.*  
3:50 p.m. Stewart Allen, Diana Greenslade, Andy Taylor and Frank Colberg  
Presenter: Allen

**HH2** *Is the UK's operational storm surge forecast model improved by increased resolution and addition of wetting and drying?*

4:10 p.m. Clare O'Neill and Andy Saulter  
Presenter: O'Neill

**HH3 *Tide-Surge Interaction in Ensemble Total Water Level Forecasts***  
4:30 p.m. N.B. Bernier, O. Huziy, P. Wang, S. Peel, B. Pouliot and K.R. Thompson  
Presenter: Bernier

**HH4 *Numerical modeling of storm surges in Brazil and Mozambique***  
4:50 p.m. Ricardo de Camargo, Joseph Harari, Alberto Francisco Mavume and Alberto José Bie  
Presenter: Camargo

**HH5 *KMA's Operational Marine Prediction and Forecasting System***  
5:10 p.m. Sung Hyup You  
Presenter: You

**5:50 p.m. Sessions end for day**

*Wednesday November 13*

## **Session I: Wave Research Initiatives for Australia**

**Chair: Stefan Zieger**

**I1 *The Victorian Coastal Monitoring Program***  
8:30 a.m. Lawrance Ferns  
Presenter: Ferns

**I2 *Nearshore wave observations and modelling to understand and manage coastal hazard risks in New South Wales, Australia***  
8:50 a.m. Michael Kinsela, Bradley Morris, Tim Ingleton, David Hanslow, David Taylor, Sean Garber, Ed Couriel, Hannah Power and Mitchell Harley  
Presenter: Kinsela

**I3 *A new national research initiative to deliver the knowledge framework & practical guidelines for an Australian Storm Wave Damage and Beach Erosion Early Warning System***  
9:10 a.m. Ian Turner and 18 others  
Presenter: Turner

**I4 *15 priorities for wind-waves research: An Australian perspective***  
9:30 a.m. Diana Greenslade, Mark Hemer, Alex Babanin, Ryan Lowe, Ian Turner, Hannah Power, Ian Young, Daniel Ierodiaconou, Greg Hibbert and Greg Williams  
Presenter: Greenslade

## **Session II: Coastal Inundation Forecasting Demonstration Project**

**Chair: Val Swail**

**II1 *Coastal Inundation Forecasting for Cyclone in Bay of Bengal: Case study from Bangladesh***  
8:30 a.m. Bapon Fakhruddin, Nadao Kohno and Quamrul Hassan  
Presenter: Fakhruddin

**II2 *End To End of Coastal Inundation Forecasting System in Indonesia***  
8:50 a.m. Nelly F. Riama, Bayu Edo Pratama and Andri Ramdhani  
Presenter: Riama

**II3 *Distant-source swell events cause coastal inundation on Fiji's Coral Coast***  
9:10 a.m. Moritz Wandres, Jérôme Aucan, Naomi Jackson, Antoine De Ramon N'Yeurt and Hervé Damlamian  
Presenter: Wandres

**II4 *Storm surge forecast in Fiji Meteorological Service***  
9:30 a.m. Misaeli Funaki, Stephen Meke, Sakeasi Waibuta, Leonard Bale and Nadao Kohno  
Presenter: Kohno

## 9:50 a.m. Break and Poster Session

### Session J: Wave Theory - 2

Chair: Andrei Pushkarev

**J1** *Modelling statistical wave interferences over shear currents*

10:40 a.m. Marcel Zijlema, Gal Akriş, Pieter Smit and Ad Reniers  
Presenter: Zijlema

**J2** *Directional Properties of Wind-Generated Surface Waves*

11:00 a.m. Luc Lenain, Nick Statom and W. Kendall Melville  
Presenter: Lenain

**J3** *Discerning the world ocean wave fields from long-term spectral wave data*

11:20 a.m. Jesús Portilla-Yandún  
Presenter: Portilla

**J4** *Are the crest height distributions in laboratory generated waves and in the ocean waves similar?*

11:40 a.m. Gunnar Lian and Sverre Haver  
Presenter: Lian

### Session JJ: Coastal Forecasting - 1

Chair: Ali Abdolali

**JJ1** *Combining Ocean, Wave, Hydrologic, Riverine Flow Models at a Local and Regional Scale along the East Coast of the United States*

10:40 a.m. Trey Flowers, Hendrik Tolman, Thomas Graziano, Edward Clark, Roham Bakhtyar, Nicole Kurkowski, Kazungu Maitaria, Saeed Moghimi, Beheen Trimble and Panagiotis Velissariou  
Presenter: Flowers

**JJ2** *Modelling combination hazard in an estuary from river and storm tide flooding*

11:00 a.m. Lisa Harrison, Tom Coulthard, Christopher Skinner, Peter Robins, Matt Lewis and Sue Manson  
Presenter: Lewis

**JJ3** *Towards coupling coastal ocean models to inland hydrology at NOAA National Ocean Service*

11:20 a.m. Saeed Moghimi and 25 others  
Presenter: Moghimi

**JJ4** *Coastal Storm Modeling System: Applications to the US South Atlantic Coast*

11:40 a.m. T. Chris Massey  
Presenter: Massey

## 12:00 p.m. Lunch

### Session K: Wave Forecasting - 1

Chair: Jean Bidlot

**K1** *Regional data assimilation of in-situ and remote sensed wave height data, using NEMOVAR and a refined grid wave model*

1:30 p.m. Andy Saulter, Christopher Bunney, Robert King and Jennifer Waters  
Presenter: Saulter

**K2** *On the assimilation of CFOSAT wave data in the operational CMEMS wave system : improvements and impact on ocean/waves coupling*

1:50 p.m. Lotfi Aouf, Alice Dalphinnet, Danièle Hauser, Bertrand Chapron, Cédric Tourain and Céline Tison  
Presenter: Aouf



**K3** *Data assimilation with the Ensemble Kalman Filter in a high-resolution spectral wave model demonstrated on a case in the Southern North Sea*

2:10 p.m. Jesper Sandvig Mariegaard and Natacha Fery  
Presenter: Mariegaard

**K4** *Unified Environmental Modeling from research to operations*

2:30 p.m. Hendrik L. Tolman  
Presenter: Tolman

## Session KK: Storm Surge Modelling - 2

Chair: Thomas Mortlock

**KK1** *Impact of waves on storm surges in the North Sea: model evaluation against observations*

1:30 p.m. Lucia Pineau-Guillou, Marie-Noëlle Bouin, Fabrice Ardhuin, Florent Lyard and Jean Bidlot  
Presenter: Pineau-Guillou

**KK2** *Storm Surge Modeling in the Southern of Java using Coupling 4D-VAR Circulation-Waves Model : EnsembleKF and Multi-Verification Approach*

1:50 p.m. Khafid Rizki Pratama and Ejha Larasati Siadari  
Presenter: Pratama Khafid Rizki

**KK3** *Storm surge model sensitivity to uncertain inputs*

2:10 p.m. Simon Warder, Kevin Horsburgh and Matthew Piggott  
Presenter: Warder

**KK4** *1921 Shark Bay Tropical Cyclone: Understanding the extreme storm surge and its implications*

2:30 p.m. J.M. Aldridge, J. Christensen, A.D. Switzer, D.R. Taylor, J.W. Churchill and H.M. Watson  
Presenter: Aldridge

## 2:50 p.m. Break and Poster Session

## Session L: Wave Forecasting - 2

Chair: Andrew Saulter

**L1** *Updates to the Global Wave Forecast System at NCEP: wave-current coupling, physics optimization, high-resolution grids, and coupling to the Global Atmospheric Forecast System GFS*

3:50 p.m. Jose-Henrique Alves, Deanna Spindler and Jessica Meixner  
Presenter: Alves

**L2** *Assessment and Calibration of an Operational Wave Forecast for the Brazilian Coast*

4:10 p.m. Ricardo Martins Campos, Andressa D'Agostini and Bruna Reis  
Presenter: Campos

**L3** *Extreme wave predictions around the southern African coastline*

4:30 p.m. James D. Dykes, Christo Rautenbach, Marc de Vos, Tania Williams, Michael A. Barnes and David Wang  
Presenter: Dykes

**L4** *Towards an atmospheric-waves coupled operational system at DWD*

4:50 p.m. Mikhail Dobrynin, Oliver Sievers and Thomas Bruns  
Presenter: Dobrynin

**L5** *Recent updates of JMA's wave models and their products*

5:10 p.m. Takahiro Ito and Nadao Kohno  
Presenter: Ito

## Session LL: Wave Climatology

## Chair: Li Erikson

### **LL1** *Southern Ocean Wave Atlas*

3:50 p.m. Tom Durrant, Jorge Perez, Peter McComb, Henrique Rapizo, Rafael Guedes and Sally Garrett  
Presenter: Durrant

### **LL2** *Global swell from Voluntary Observing Ships data*

4:10 p.m. V. Grigorieva and S. Gulev  
Presenter: Grigorieva

### **LL3** *Added value of spectra data against standard sea state parameters for wave climate studies*

4:30 p.m. M. Menéndez, O. Mazzaretto, H. Lobeto and A. Espejo  
Presenter: Menendez

### **LL4** *Climate driver impacts on global ocean surface wave variability and extremes*

4:50 p.m. Andrew G Marshall, Harry H Hendon, Mark A Hemer, Kathleen L McInnes and Tom H. Durrant  
Presenter: Marshall

### **LL5** *Modeling analysis of extreme waves along the U.S. coast of Pacific Ocean*

5:10 p.m. Zhaoqing Yang, Gabriel García-Medina and Taiping Wang  
Presenter: Yang Zhaoqing

**5:30 p.m. Sessions end for day**

**7:00 p.m. Banquet - Sheraton Ballroom**

*Thursday November 14*

**Session M: Mark A. Donelan Special Session**

**Chair: Luigi Cavaleri**

### **M1** *Integrable Turbulence in the World Ocean*

8:30 a.m. Alfred R. Osborne  
Presenter: Osborne

### **M2** *Revised parameterization of wave induced turbulent kinetic energy for upper ocean surface mixing*

8:50 a.m. Nobuhito Mori, Masashi Takagi, Junichi Ninomiya and Tomoya Shimura  
Presenter: Mori

### **M3** *Connection Between Time Scales: Turbulence, Waves, Weather, Climate*

9:10 a.m. Alexander V. Babanin  
Presenter: Babanin

### **M4** *Surface Wave Spectral Properties of Centimeter to Decameter Wavelengths: Microwave Remote Sensing Observations in Mild to Extreme Wind Conditions*

9:30 a.m. Paul A. Hwang  
Presenter: Hwang

**9:50 a.m. Break and Poster Session**

**Session N: Coastal Forecasting - 2**

**Chair: Herve Damlamian**

### **N1** *Predicting Infragravity Wave Height from Swell Wave Characteristics*

10:40 a.m. Benjamin G. Williams and Lex F. Nielsen  
Presenter: Williams

### **N2** *The role of lagoons in determining coastal impacts from tropical cyclones along reef-*

**fronted coastlines**

11:00 a.m. Jeff E. Hansen, Michael V.W. Cuttler and Dirk P. Rijnsdorp

Presenter: Hansen

**N3 *A Dispersive Long-Wave Model for Predicting Coastal Flooding Due to Storm Surges and Surface Waves in Manila Bay***

11:20 a.m. C.P. Celebre, P.C. Rivera, M.C. Uson, M.C. Monteverde and J.B. Zerrudo

Presenter: Rivera

**N4 *Global contributions to extreme sea levels at reef coastlines***

11:40 a.m. Ryan J. Lowe, Ellen Quataert, Robert McCall, Ap van Dongeren, Jose A.A. Antolínez, Mark Buckley, Jeff Hansen and Stuart G. Pearson

Presenter: Lowe

**Session NN: Wave Design Criteria**

**Chair: Steve Buchan**

**NN1 *How to account for simultaneous occurrence of wind sea and swell when assessing extreme response of a floating platform?***

10:40 a.m. Sverre Haver

Presenter: Haver

**NN2 *On the selection of the most impactful storms from a synthetic Tropical Cyclone database***

11:00 a.m. S. Zieger, J. Kepert, P. Jonathan, S. Aijaz and D. Greenslade

Presenter: Zieger

**NN3 *Design Tropical Cyclone Wind and Waves for North Western Australia***

11:20 a.m. Jeff Kepert, Stefan Zieger, Saima Aijaz, Diana Greenslade and Aaron Wassing

Presenter: Kepert

**NN4 *Projection and detection of climate change impact on wave-induced fatigue damage of floating structures operating offshore South Africa***

11:40 a.m. Tao Zou and Mirek Kaminski

Presenter: Zou

**12:00 p.m. Lunch**

**Session O: Coastal Wave - 1**

**Chair: Johannes Gemmrich**

**O1 *Storm waves at the coast: a new dataset with a wide variety of swell-dominated vs wind-wave dominated conditions***

1:30 p.m. Oliver Billson, Paul Russell and Andy Plater

Presenter: Billson

**O2 *Wave-driven extreme water levels on coral and rocky reef coastlines***

1:50 p.m. Mark L. Buckley, Ryan J. Lowe, Jeff E. Hansen, Carly E. Portch, Ap R. van Dongeren, Cameron J. Lockwood, Rebecca H. Green, Michael V. W. Cuttler and Dirk P. Rijnsdorp

Presenter: Buckley

**O3 *Extreme Coastal Responses to Focused Wave Groups***

2:10 p.m. Colin N. Whittaker, Colm J. Fitzgerald, Alison C. Raby and Paul H. Taylor

Presenter: Whittaker

**O4 *Nonlinear wave group shoaling***

2:30 p.m. A. Chabchoub, O. Kimmoun and H.C. Hsu

Presenter: Chabchoub

**Session OO: Wave Extreme Value Analysis**

## Chair: Henrique Alves

**001** *Regional Frequency Analysis for spatial extreme value analysis of ocean waves*

1:30 p.m. Erik Vanem

Presenter: Vanem

**002** *Spatial extremes approach for waves in Gulf of Mexico*

1:50 p.m. Ryota Wada, Philip Jonathan, Takuji Waseda and Shejun Fan

Presenter: Wada

**003** *Investigating the reliable extreme wave height estimation methods for Indian territorial waters*

2:10 p.m. Samayam Satish, S.A. Sannasiraj and Vallam Sundar

Presenter: Samayam

**004** *Tropical cyclone induced waves: characterization, and contribution to mean wave climatology and extreme wave climate*

2:30 p.m. Swen Jullien

Presenter: Jullien

## 2:50 p.m. Break and Poster Session

### Session Q: Wave Trend Analysis

#### Chair: Andrew Cox

**Q1** *Historical changes in the Davis Strait Baffin Bay surface winds and waves, 1979-2016*

3:50 p.m. Xiaolan L. Wang, M. Casas-Prat, Y. Feng, Alex Crosby and V. R. Swail

Presenter: Wang

**Q2** *Changes in extreme waves in the Arctic Ocean*

4:10 p.m. I.S. Cabral, I.R. Young and A. Toffoli

Presenter: de Souza Cabral

**Q3** *Global wave climate trends, what do the Australian buoys tell us?*

4:30 p.m. Francois Flocard, Mitchell D. Harley, Ian R. Coghlan and Ron J. Cox

Presenter: Flocard

**Q4** *Investigating sea state trends and variability with new climate-quality satellite altimeter products*

4:50 p.m. Ben Timmermans and Christine Gommenginger

Presenter: Gommenginger

**Q5** *Global trends in wind speed and wave height*

5:10 p.m. Ian Young and Agustinus Ribal

Presenter: Young

### Session QQ: Coastal Wave - 2

#### Chair: Jenny Brown

**QQ1** *Wave Climate from Spectra and its Impact on Longshore Sediment Transport*

3:50 p.m. Rodrigo Alonso and Sebastián Solar

Presenter: Alonso

**QQ2** *Long waves dynamics in the nearshore*

4:10 p.m. Stephanie Contardo, Ryan Lowe, Jeff Hansen, Graham Symonds, Francois Dufois, Dirk Rijnsdorp and Ron Hoeke

Presenter: Contardo

**QQ3** *The impact of nearshore reefs on coastal hydrodynamics and shoreline profiles*

4:30 p.m. Andrew W.M Pomeroy

Presenter: Pomeroy

**QQ4** *Wave modelling and field measurements in a complex estuary*  
4:50 p.m. Patrick Oosterlo, Gerbrant van Vledder, Bas Hofland, Jentsje van der Meer, Nathanaël Geleynse, Michiel Reneerkens, Gosse Jan Steendam and Marco Veendorp  
Presenter: Oosterlo

**QQ5** *Modeling of Wave Interaction with Natural and Nature-Based Features*  
5:10 p.m. Jane McKee Smith, Mary Anderson Bryant and Catie Dillon  
Presenter: Smith

**5:30 p.m. Sessions end for day**

*Friday November 15*

## **Session R: Wave Reanalysis**

**Chair: Lotfi Aouf**

**R1** *ERA5 reanalysis and ERA5-based ocean wave hindcast*  
8:30 a.m. Jean-Raymond Bidlot, Gil Lemos and Alvaro Semedo  
Presenter: Bidlot

**R2** *WAVERYYS : A CMEMS global wave reanalysis during the altimetry period*  
8:50 a.m. Stéphane Law-Chune, Lotfi Aouf and Alice Dalphinnet  
Presenter: Law Chune

**R3** *Wave climate in the North Atlantic Ocean and extreme value analysis*  
9:10 a.m. K. Sasmal, R. Miratsu, T. Kodaira, Y. Kita, T. Zhu, T. Fukui and T. Waseda  
Presenter: Sasmal

**R4** *Understanding discrepancies in global ocean surface wave climate based on ERA5, MERRA2, ERA-I and CFSR hindcasts*  
9:30 p.m. V. Sharmar, M. Markina and S. Gulev  
Presenter: Sharmar

## **Session RR: Coastal Hazards - 1**

**Chair: Ap van Dongeren**

**RR1** *“Grey swan” extra-tropical storm surges pose a greater risk for European flooding than climate change*  
8:30 a.m. Kevin Horsburgh, Ivan Haigh, Jane Williams, Judith Wolf and Michela De Dominicis  
Presenter: Horsburgh

**RR2** *Climate-based wave and storm surge emulator for long-term analysis of coastal flooding and erosion*  
8:50 a.m. Laura Cagigal, Ana Rueda, Dylan Anderson, Peter Ruggiero, Mark A. Merrifield, Giovanni Coco and Fernando J. Méndez  
Presenter: Cagigal

**RR3** *Probabilistic tropical cyclone inundation hazard assessment, Lenakel, Tanna Island, Vanuatu*  
9:10 a.m. Herve Damlamian, Moritz Wandres, Judith Giblin, Naomi Jackson, Zulfikar Begg, Poate Degei, Salesh Kumar, Jens Kruger, Tony Kanas, Rodhson Aru and Noel Naki  
Presenter: Damlamian

**RR4** *Early warning simulation for coastal inundation vulnerability induced by wave overtopping*  
9:30 p.m. Seung-Won Suh  
Presenter: Suh

**9:50 a.m. Break and Poster Session**

## Session S: Wave Climate Change - 1

Chair: Xiaolan Wang

- S1** *Robustness and uncertainties in global multivariate wind-wave climate projections*  
10:40 a.m. Joao Morim and 25 others  
Presenter: Morim
- S2** *Robust signals of change in the historical global wave climate*  
11:00 a.m. Li Erikson and the COWCLIP Group  
Presenter: Erikson
- S3** *Changes in global ocean extreme wave heights over the 21st Century*  
11:20 a.m. Alberto Meucci, Ian R. Young and Mark Hemer  
Presenter: Meucci
- S4** *The Sea State Climate Change Initiative project*  
11:40 a.m. Guillaume Dodet and the Sea State CCI Team  
Presenter: Dodet

## Session SS: Coastal Hazards - 2

Chair: Chris Massey

- SS1** *Modelling of hurricane impacts on barrier islands*  
10:40 a.m. Ap van Dongeren, Marlies van der Lugt, Ellen Quataert, Maarten van Ormondt and Chris Sherwood  
Presenter: Van Dongeren
- SS2** *Coastal Hazard Mitigation: Factors Influencing the Effectiveness of Surge Barriers in Reducing Back Bay Flooding*  
11:00 a.m. Mary A. Cialone, Greg Slusarczyk and Robert Hampson  
Presenter: Cialone
- SS3** *New field measurements of coastal wave overtopping*  
11:20 a.m. J. Brown, M. Yelland, R. Pascal, T. Pullen, E. Silva, D. Jones, R. Pinnell, C. Cardwell, P. Bell, A. Martin, B. Farrington, I. Gold, C Bird and C. Thompson  
Presenter: Brown
- SS4** *Storm waves and coastal hazards: Understanding near-shore wave events through studies of boulder transport*  
11:40 a.m. Frederic Dias, James Herterich and Ronadh Cox  
Presenter: Dias

12:00 p.m. Lunch

## Session T: Wave Climate Change - 2

Chair: Mark Hemer

- T1** *Change in the Arctic Ocean wave extremes - coastal and offshore hazards*  
1:30 p.m. Mercè Casas-Prat and Xiaolan L. Wang  
Presenter: Casas-Prat
- T2** *Trends and variability of waves under scenario RCP8.5 in the Mediterranean Sea*  
1:50 p.m. Giovanni Besio, Lorenzo Mentaschi and Francesco De Leo  
Presenter: Besio
- T3** *Hybrid downscaling methodology for high-resolution 21 Century wave projections: A case study at New Zealand*  
2:10 p.m. Alba Cid, Joao Albuquerque, Li Erikson, Giovanni Coco and Fernando J. Mendez  
Presenter: Cid

**T4** *Future Wave Climate Projection for the Northwestern Atlantic*

2:30 p.m. Adrean Webb, Tomoya Shimura and Nobuhito Mori

Presenter: Webb

**T5** *Projections of directional wave climate change in Australia using a statistical-synoptic typing approach*

2:50 p.m. T.R. Mortlock, I.D. Goodwin and Z. Baille

Presenter: Mortlock

**3:10 p.m. Closing Remarks**

**3:30 p.m. Workshop Ends**

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

**P1** *Adaptive Tx Pulse for Wave Measurements*

Harald Tholo, Emilie Dorgeville and Richard Butler

Presenter: Bird

**P2** *Wave imaging capabilities of the new rotating wave scatterometer SWIM onboard CFOSAT over open ocean and sea ice.*

Fabrice Collard and 15 others

Presenter: Pineau-Guillou

**P3** *Noise properties of altimeter wave measurements*

Guillaume Dodet, Yves Quilfen and Fabrice Ardhuin

Presenter: Dodet

**P4** *A spectral description for extreme sea states offshore Denmark: Part II Directional spreading function*

Kevin Ewans, Hans Hansen and Allan Rod Zeeberg

Presenter: Ewans

**P5** *Analysis of the multi-modality on the directional wave spectrum*

Takashi Fujiki, Nobuhito Mori and Koji Kawaguchi

Presenter: Fujiki

**P6** *Estimation of Nearshore Energy Dissipation by Coherent X-band Radars*

Michael Streßer and Jochen Horstmann

Presenter: Horstmann

**P7** *Relative performance of Directional Waverider Buoy, Optec Laser, and Wave Radar during a Tropical Cyclone off the Northwest Coast of Australia*

Pramod K. Jangir, Kevin Ewans and Alexander V. Babanin

Presenter: Jangir

**P8** *Extreme sea state characterization from a Wave-Powered, Unmanned Surface Vessel*

Sophia Merrifield and Eric Terrill

Presenter: Merrifield

**P9** *Wave Rider Buoy network and Wave Forecasting System: Innovations and best Practices from Indian coast*

Nair T. M. Balakrishnan

Presenter: Nair

**P10** *Sea state bias correction in altimetry measurements using new parametric model*

S. I. Badulin, V.G. Grigorieva, I.O. Karpov, P.A. Shabanov and V.D. Sharmar

Presenter: Grigorieva

**P11** *Global ocean wind speed observed from seven different scatterometers, namely ERS-1, ERS-2, QuikSCAT, Metop-A, OceanSat-2, Metop-B and RapidScat*

Agustinus Ribal and Ian R. Young

Presenter: Ribal

**P12** *Evaluation and bias correction of marine surface winds from CMIP5 and CMIP6 GCMs for wave climate modelling in the western North Pacific.*

M.R. Badriana and H.S. Lee

- Presenter: Lee
- P13** ***A Modified Miles Perspective on Wave Generation by wind***  
Donald T. Resio  
Presenter: Resio
- P14** ***Data assimilation methods to improve the wave predictions in the Black Sea***  
Liliana Rusu  
Presenter: Rusu Liliana
- P15** ***Influence of Assimilating Altimeter Data in WAM***  
Oliver Sievers  
Presenter: Sievers
- P16** ***Real-time forecasting of coastal waves and surface current with assimilation of HF radar in the Bali Strait***  
Khafid Rizki Pratama, Ejha Larasati Siadari and Bayu Edo Pratama  
Presenter: Pratama Khafid Rizki
- P17** ***Innovative Wave Transformation Algorithm for Improved Short-term Wave Forecasting***  
Sean Garber, David Taylor and Jarrod Dent  
Presenter: Garber
- P18** ***Performance of algorithms for rapid first guess prediction of surf heights***  
Andrew Saulter, Tim Poate and Christopher Stokes  
Presenter: Saulter
- P19** ***Comparison of ECMWF significant wave height forecasts for the China Sea with buoy data***  
Juanjuan Wang  
Presenter: Wang Juanjuan
- P20** ***Metocean conditions during the Antarctic Circumnavigation Expedition: A comparison with model predictions***  
Marzieh H. Derkani, Stefan Zieger, Katrin Hessner, Filippo Nelli, Lotfi Aouf and Alessandro Toffoli  
Presenter: Derkani
- P21** ***Evaluation of high resolution regional model (COSMO) used in marine weather forecasting over the Nigerian coast- Gulf of Guinea.***  
Mutiat Sholademi, Kamorudeen Lawal and Emmanuel Aweda  
Presenter: Sholademi
- P22** ***Revisiting the Young 1988 Parametric Hurricane Wave Prediction Model***  
Jose-Henrique Alves and Ian Young  
Presenter: Alves
- P23** ***Assessing the reliability of wave-driven coastal flood prediction techniques under varying wave conditions and bottom roughness***  
Carly E. Portch, Mark L. Buckley, Ryan J. Lowe, Jeff E. Hansen, Cameron J. Lockwood, Dirk P. Rijnsdorp, Michael V. W. Cuttler and Rebecca H. Green  
Presenter: Portch
- P24** ***NEMO based regional storm surge prediction system development in KMA***  
Nary La, Byoung Woong An, KiRyong Kang and YoonJae Kim  
Presenter: La
- P25** ***BG: an adaptive, open-source, GPU capable, general inundation model***  
Cyprien Bosserelle, Emily Lane and Wolfgang Hayek  
Presenter: Bosserelle
- P26** ***Physical modelling of debris effects on extreme wave inundation***  
Piyali Chowdhury, Alison Raby, Paul Taylor, Ravindra Jayaratne, Janaka Wijetunge and Sujeewa Ranawaka  
Presenter: Chowdhury
- P27** ***Coastal dynamics under coral reef degradation scenarios***  
Astorga Moar  
Presenter: Astorga Moar
- P28** ***A coupled surface-groundwater flow numerical model for a sandy coastal barrier beach with a mobile bed***  
Eranda Pereraa and Fangfang Zhu



- Presenter: Perera  
**P29** ***Hydrodynamics numerical simulation of artificial reefs with different spatial layouts in offshore waters***  
Anping Shu, Jiping Qin, Mengyao Wang and Shu Wang  
Presenter: Shu
- P30** ***The impact of inlet closures on water volume in Barnegat Bay.***  
Greg Slusarczyk and Mary A. Cialone  
Presenter: Slusarczyk
- P31** ***Analysis of wave and sea level condition causing extreme beach erosion along the Uruguayan coast***  
Sebastián Solari and Rodrigo Alonso  
Presenter: Solari
- P32** ***Numerical modelling of single and multiple floating bodies***  
Filippo Nelli  
Presenter: Nelli
- P33** ***On Phase-Resolving Simulations of Deep-Water Waves: Wave Absorption using a Static-Boundary Method***  
M.W. Gamal-Aldin and A.V. Babanin  
Presenter: Gamal-Aldin
- P34** ***Simulating the Response of Ocean Waves to Turning Winds with the Generalized Kinetic Equation***  
Qingxiang Liu, Odin Gramstad and Alexander V. Babanin  
Presenter: Liu
- P35** ***Effect of waves on the surface relative dispersion in the Western Gulf of Mexico***  
P. Osuna, A. Moulin, F.J. Ocampo-Torres and N. Rascole  
Presenter: Osuna
- P36** ***Flow generated by surfaces waves***  
Horst Punzmann, Hua Xia, Nicolas Francois and Michael Shats  
Presenter: Punzmann
- P37** ***Impact of Wave and SST cooling on tropical cyclone in coupled AGCM-Slab ocean-Wave model***  
Daisuke Urano, Tomoya Shimura, Ryo Mizuta and Nobuhito Mori  
Presenter: Urano
- P38** ***Development of an atmosphere-wave coupled model***  
Nadao Kohno and Yuhei Takaya  
Presenter: Kohno
- P39** ***ROMS-CICE-WW3 Coupled Model in the Beaufort Sea***  
Li Junde  
Presenter: LI Junde
- P40** ***Skill assessments of an atmosphere-wave regional coupled model over the East China Sea with focus extremes – typhoons***  
Delei Li, Joanna Staneva, Sebastian Grayek, Arno Behrens and Baoshu Yin  
Presenter: Staneva
- P41** ***Nonlinear Wave Ensemble Averaging using Neural Networks***  
Ricardo Martins Campos, Jose-Henrique Alves, Vladimir Krasnopolsky and Stephen G. Penny  
Presenter: Campos
- P42** ***On the use of wave ensemble of the model MFWAM to diagnose extreme wave events in North-East Atlantic Ocean***  
Lotfi Aouf, Cédric Amore, Bruno Joly and Alice Dalphinnet  
Presenter: Aouf
- P43** ***WAVEWATCH III SMC grid update for multi-resolution winds and hybrid parallelisation***  
Jian-Guo Li and Andrew Saulter  
Presenter: Saulter
- P44** ***Sea-state contributions to sea-level variability in the European Seas***  
A. Bonaduce, J. Staneva, J.R. Bidlot and Ø. Breivik

Presenter: Bonaduce

**P45 *A device for measuring wind waves in the marginal ice zone***

V. Alari

Presenter: Alari

**Session PP: Posters - sessions Wednesday, Thursday, Friday**

**PP1 *Determination of oceanic extremes using a spatial ensemble of satellite data***

Alicia Takbash and Ian Young

Presenter: Takbash

**PP2 *On estimation of return values for wind speed and wind-wave heights time series***

V.G. Polnikov and I.A. Gomorev

Presenter: Gomorev

**PP3 *Wave-Current Interaction in the Lofoten Maelstrom Area Northern Norway***

Ana Carrasco and Øyvind Sæatra

Presenter: Carrasco

**PP4 *Global implications of surface current modulation of the wind-wave field***

Emilio Echevarria, Mark Hemer, Neil Holbrook and Salman Khan

Presenter: Echevarria

**PP5 *Vessel-generated solitons in Port Phillip Bay***

David Provis and Phebe Bicknell

Presenter: Provis

**PP6 *Skilful seasonal prediction of ocean surface waves in the Atlantic Ocean***

Mikhail Dobrynin, Tobias Kleine, Andre Dusterhus and Johanna Baehr

Presenter: Dobrynin

**PP7 *Paving the way to combine large scale accurate hindcast data and advanced statistical methods for future offshore applications***

Maziar Golestani and Patrick Dich Gode

Presenter: Gode

**PP8 *Description and Validation of the Marine Copernicus Near-Real-Time Wave Products derived from altimetry and SAR measurements***

E. Charles, R. Husson, A. Mouche, G. Dodet and H. Wang

Presenter: Charles

**PP9 *Swell wave events in the Caribbean Sea and Gulf of Mexico : Atmospheric forcing and case study analysis***

Miles Harris

Presenter: Harris

**PP10 *Estimation of water waves using an unsupervised learning method with video imagery***

Jinah Kim and Jaeil Kim

Presenter: Kim Jinah

**PP11 *HDwave project – statistical space-time projections of wave heights***

H. W. Rognebakke, T. L. Thorarinsdottir, T. A. Øigård, H. L. Hammer, E. Vanem and Stefanakos

Presenter: Rognebakke

**PP12 *Transformation of long surface waves in the ocean with a variable bathymetry***

A. M. Ermakov and Y. A. Stepanyants

Presenter: Stepanyants

**PP13 *On the determination of the upper limit frequency of infragravity waves on the east coast of Korea***

Jung-Eun Oh, Weon Mu Jeong and Sang-Ho Oh

Presenter: Oh

**PP14 *Repercussions of navigation channel deepening on waves and currents***

Huy Quang Tran and Alessandro Toffoli

Presenter: Tran

**PP15 *Observation of Shoreline Reflection of Infragravity Waves in the Port of Salalah, Oman***

Wim van der Molen and Rob Nairn

- Presenter: van der Molen  
**PP16 *Sea Spray Generation Function under Strong Wind Condition with Waves***  
Xingkun Xu, Hongyu Ma and Alexander V. Babanin  
Presenter: Xu
- PP17 *Wave forms in a circular geometry***  
John Bye  
Presenter: Bye
- PP18 *The effect of Langmuir turbulence in the real ocean with complex dynamics***  
Yalin Fan, Zhitao Yu, Ivan Savelyev and Junhong Liang  
Presenter: Fan
- PP19 *An analysis of the expected storm dynamics in the basin of the Black Sea***  
Eugen Rusu  
Presenter: Rusu Eugen
- PP20 *Simulation of Dahlia Tropical Cyclone Impact on Atmospheric Dynamic and Ocean in Sunda Strait using Delft-3D model***  
Adelina Lumbangaol, Aries Kristianto and Ahmad Fadlan  
Presenter: Lumban Gaol
- PP21 *Ocean Responses to Typhoon Soulik(1819) around Korea***  
KiRyong Kang and YoonJae Kim  
Presenter: Kang
- PP22 *Spatial Distribution of Tropical Cyclones Wind Speed and Wave Height from Satellite and Insitu Data***  
Ali Tamizi and Ian R. Young  
Presenter: Tamizi
- PP23 *Understanding the impacts of submerged structures on nearshore hydrodynamics through phase-resolved numerical simulations***  
Renan F. da Silva, Jeff Hansen, Dirk Rijnsdorp, Ryan Lowe and Mark Buckley  
Presenter: Leal Campos Fonseca da Silva
- PP24 *Quantifying the effect of future coral reef degradation on U.S. coastal flooding hazards***  
Curt D. Storlazzi, Borja G. Reguero, Michael W. Beck, Aaron D. Cole, James B. Shope, Ann E. Gibbs and Kristen A. Cumming  
Presenter: Storlazzi
- PP25 *Can we manage the unexpected? Constructing plausible storm tides with high impact potential and consequences for coastal protection and disaster risk management***  
Ralf Weisse and 14 others  
Presenter: Gaslikova
- PP26 *A new index for real time evaluation of coastal hazard***  
Francesco De Leo  
Presenter: De Leo
- PP27 *New tools for quantifying ocean hazards for roads in high density island communities***  
Oceana Francis, Linqiang Yang, Harrison Togia, Horst Brandes, Ogul Doygun, Caroline Rossi, Guohui Zhang, David Ma and Casey Abe  
Presenter: Francis
- PP28 *Coastal hazard modelling for Port Phillip Bay (Victoria, Australia) using the SCHISM coupled wave-flow hydrodynamic model***  
Vanessa Hernaman, Ron K. Hoeke, Kathleen L. McInnes, Claire Trenham, Phellipe Couto, Remy Zyngfogel, Brett Beamsley and Tom H. Durrant  
Presenter: Hernaman
- PP29 *The Port Phillip Bay Coastal Hazard Assessment: Scientific Component Overview***  
Ron K. Hoeke, Vanessa Hernaman and Kathy L. McInnes  
Presenter: Hoeke
- PP30 *Overwash hazards at a high visitation rock platform: developing a wave risk rating tool***  
Hannah E. Power, Michael A. Kinsela, Caio E. Stringari, Murray J. Kendall and David J. Hanslow  
Presenter: Power
- PP31 *Port Phillip Bay Coastal Hazard Assessment***

- Tamara van Polanen Petel, Kathy L, McInnes and Vanessa Hemaman  
Presenter: Hernaman
- PP32** ***Optimization of Oscillating Water Columns in Wave Energy Conversion and Coastal Protection***  
Danica Tothova and Richard Manasseh  
Presenter: Tothova
- PP33** ***Calibration of a global tide and surge model during tropical cyclone conditions in Northeast Australia***  
T.R. Mortlock, M. Apecechea, S. De Kleermaeker and M. Verlaan  
Presenter: Mortlock
- PP34** ***A study on the swell and sea characteristics along the south west coast of India during the monsoon season***  
G. Uma and S. A. Sannasiraj  
Presenter: Sannasiraj
- PP35** ***JRA-55 Forced High-Resolution Wave Climate Hindcast around Japan and its Spectral Representation***  
Tomoya Shimura and Nobuhito Mori  
Presenter: Shimura
- PP36** ***Hindcasting of historical tropical cyclone winds and waves***  
Saima Aijaz, Stefan Zieger, Jeff Kepert, Diana Greenslade and Aaron Wassing  
Presenter: Aijaz
- PP37** ***Numerical wind and wave hindcasting in the Caspian Sea***  
M. Jandaghi Alaei, M.H. Moeini, E. Jafari and S. Hamzeli  
Presenter: Jafari
- PP38** ***Directional wave changes induced by the expanding tropics***  
Itxaso Odériz Martínez, Thomas R Mortlock, Rodolfo Silva Casarín and Stipo Sentic  
Presenter: Mortlock
- PP39** ***Wave Climate Change in the North Sea and Baltic Sea***  
A. Bonaduce, J. Staneva, A. Behrens, J.R. Bidlot and R.I. Wilcke  
Presenter: Bonaduce
- PP40** ***Predicting compartment-scale climate change impacts related to Southern Ocean wave forcing: Port Fairy, Victoria, Australia.***  
C. Leach, D.M. Kennedy, D. Ierodiaconou and R. Carvalho  
Presenter: Leach
- PP41** ***Regional climate projections of sea surface dynamics in the western Mediterranean***  
M. Menéndez, M. Ramírez, B. Perez, P. Camus and I. Losada  
Presenter: Menendez
- PP42** ***Large-scale Experiment of the Interactions Between Mechanically Generated Swell and Wind Waves***  
Mary Anderson Bryant, Duncan Burnette Bryant, Jane McKee Smith, Taylor Bailey and Lauren Ross  
Presenter: Bryant
- PP43** ***Maximum wave heights from numerical wave models***  
F. Barbariol, J.H. Alves, A. Behrens, A. Benetazzo, L. Bertotti, J. Bidlot, L. Cavaleri, P. Pezzutto, M. Sclavo, J. Staneva and J. Thomson  
Presenter: Cavaleri
- PP44** ***Freak Waves in the Southern Ocean***  
Uggo Ferreira de Pinho, Henrique Rapizo and A. V. Babanin  
Presenter: Babanin
- PP45** ***Rogue Waves in the North Sea- A Statistical Analysis of 300 Million Waves***  
Ina Teutsch  
Presenter: Teutsch