

# 37th International Conference on Coastal Engineering Program

Program Current as of 6 December 2022, Subject to change  
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## Sunday 04 December 2022

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| 1300 - 1530 | Exhibition Build and Move In  |
| 1500 - 1800 | Registrations Open  |
| 1800 - 1930 | Welcome Reception<br>Pyrmont Foyer, Level 2, International Convention Centre Sydney |

## Monday 05 December 2022

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| 0730 - 1700 | Registrations Open  |
| 0830 - 1030 | Plenary Session<br>Pyrmont Theatre, International Convention Centre, Sydney   |
| 0830 - 0935 | Welcome to Country & Conference Welcome, Ian Turner, Joint-Chair, ICCE 2022<br>Conference Co-Host Welcome, Romilly Madew, CEO, Engineers Australia<br>Minister Welcome & Official Opening, The Hon. Robert Stokes MP, Minister for Infrastructure, Minister for Cities, and Minister for Active Transport<br>Kari Performance "Djapana Sunset Dreaming" |
| 0935 - 1015 | Keynote Address: The Exploration and Engineering of Australia's Coastline: An Indigenous Perspective<br>Brett Rowling<br>Research Chemist ANSTO<br>NST Isotope Tracing in Natural Systems   |
| 1015 - 1030 | Co-Host CERC Welcome and CERC Award Presentations, Patrick Lynett and Daniel Cox<br>Platinum Sponsor: Baird   |

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| 1030 - 1100 | Morning Tea |
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| 1100 - 1300 | Technical Sessions |
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| Session     | Session 1<br>Wave Overtopping 1  | Session 2<br>Coastal Flooding and Inundation 1  | Session 3<br>Satellite Remote Sensing 1  | Session 4<br>Sensing and Instrumentation   | Session 5<br>Sediment Dynamics at Engineered Coasts  | Session 6<br>Nature-Based Solutions 1  |
|-------------|--|---|--|--|--|--|
| Room        | Room C2.1  | Room C2.2   | Room C2.3  | Room C2.4  | Room C2.5  | Pyrmont Theatre  |
| Chair       | Amir Etemad-Shahidi  | Laura Cagigal   | Erwin Bergsma  | Adam Fincham   | Andrew McCowan   | Grzegorz Rozyński  |
| 1100 - 1120 | MODELLING WAVE OVERTOPPING AND WAVE IMPACTS BY MEANS OF IMAGE CLUSTERING TECHNIQUES<br>Elisa Dallavalle, University of Bologna, Italy            | HEC-RAS BASED COMPOUND FLOOD ANALYSIS FOR PROJECT PLANNING AND DESIGN<br>Maxwell Agnew, US Army Corps of Engineers, United States   | SATELLITE-DERIVED SANDY SHORELINE CHANGE (1984-2020) AND PRIMARY RIVERS IN SW FRANCE<br>Bruno Castelle, CNRS / Univ. Bordeaux, France  | RIP CURRENT DETECTION IN AN OPEN AREA AND ALONG JETTY USING AI<br>Toshinori Ishikawa, Chuo University, Japan                           | MIXED-SEDIMENT DYNAMICS AT A BACK-BARRIER BEACH NOURISHMENT<br>Jorn Bosma, Utrecht University, Netherlands   | ECOENGINEERING FRESHWATER FLOWS FOR ESTUARY HYDROLOGICAL STATE<br>Shari L. Gallop, University of Waikato & PDP (Pattle Delamore Partners Ltd), New Zealand |
| 1120 - 1140 | EXPERIMENTAL INVESTIGATIONS INTO THE EFFECT OF STRONG WINDS ON WAVE OVERTOPPING AT A VERTICAL SEAWALL<br>Naoto Inagaki, Waseda University, Japan | DEVELOPMENT OF FLOOD RISK REDUCTION INVESTMENT STRATEGIES THROUGH GLOBAL FLOOD RISK TOOL AND APPLICATION OF ADAPTATION PATHWAYS<br>Matthijs Bos, Royal Haskoning DHV, Singapore               | ADVANCES ON THE USE OF SATELLITE DERIVED PRODUCTS TO DETECT COASTAL CHANGES: DEMONSTRATION CASE ON THE COAST OF SPAIN<br>Ernesto Mauricio González Roíguez, Fundación Instituto De Híáulica Ambiental, Spain | CHALLENGES IN AUTOMATION OF QUALITY CONTROL FOR TIDE GAUGE DATA<br>Felix Soltau, University of Siegen, Germany                         | UNDERSTANDING 3D SAND WAVE DYNAMICS FOR ENGINEERING PURPOSES<br>Pauline Overes, University of Twente, Deltares, Netherlands  | CREEK RESTORATION EFFECTS ON TIDAL DYNAMICS IN MANGROVES<br>Erik Horstman, University of Twente, Netherlands   |
| 1140 - 1200 | STOCHASTIC BOUNDARY UNCERTAINTY IN MEAN WAVE OVERTOPPING RATE ESTIMATES<br>Nikos Kalligeris, National Observatory of Athens, Greece              | EXTREME RAINFALL-RUNOFF MODELING DURING REMNANTS OF IDA IN NEW YORK<br>Rob Nairn, Baird and Associates, Canada  | CLASSIFYING AND QUANTIFYING COASTAL CHANGE IN SCOTLAND USING SATELLITE-DERIVED COASTAL BOUNDARIES<br>Freya Muir, University of Glasgow, United Kingdom   | DISPLACEMENT BASED COMPARISON OF ACCELEROMETER AND LOW-COST GNSS WAVE BUOYS<br>Jeff Hansen, University of Western Australia, Australia | IMPACT OF LONGSHORE SEDIMENT TRANSPORT ON THE DESIGN AND MAINTENANCE OF LOW-ENERGY, NON-TIDAL SANDY BEACHES<br>Anne Ton, Delft University of Technology, Netherlands | ESTUARINE SENSITIVITY TO NATURE-BASED SALT INTRUSION MITIGATION MEASURES<br>Gijs Hendrickx, Delft University of Technology, Netherlands                    |
| 1200 - 1220 | AVERAGE OVERTOPPING DISCHARGE PREDICTION FOR BERM BREAKWATERS<br>Thomas Lykke Andersen, Aalborg University, Denmark                              | FLOOD MODELLING USING CSIRO DATA61'S MODELLING TOOLKIT CFAST - A CASE STUDY OF THE RIVERVIEW FAMILY CARAVAN PARK IN VICTORIA<br>Vihan Weeraratne, Monash University / CSIRO Data61, Australia | SPATIAL VARIABILITY IN BEACH-FACE SLOPES FROM SATELLITE REMOTE SENSING<br>Kilian Vos, UNSW, Australia  | PTV MEASUREMENTS OF FLOW IN THE WAKE OF POROUS MEDIA<br>Takaaki Shigematsu, Osaka Metropolitan University, Japan                       | IMPACT OF THE SHIP WAVES AND TIDAL FORCES ON THE SEDIMENT RE-SUSPENSION IN INLAND WATERWAYS<br>Mainak Chakraborty, Indian Institute of Technology, Maas, India       | WAVE DRAG COEFFICIENT USEFUL FOR NATURE: SEAGRASS-BASED COASTAL PROTECTION DESIGN IN ESTUARIES<br>Alice Twomey, University of Queensland, Australia        |

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| 1220 - 1240 | WAVE OVERTOPPING OVER A DIKE FOR VARIABLE WATER LEVEL<br><b>Maximilian Streicher, Gent University, Belgium</b>   | XBEACH IMPLEMENTATION IN THE NEW NATIONAL COASTAL FLOOD RISK ASSESSMENT FRAMEWORK FOR THE DUTCH COAST<br><b>Rinse Wilmink, Rijkswaterstaat, Netherlands</b>                    | EXPANDING COASTSAT SHORELINE DETECTION ALGORITHM TO TRACK COASTAL VEGETATION AND URBAN CHARACTERISTICS FROM SATELLITE DATA<br><b>Adriana Lanza, Northeastern University, United States</b> | APPLICATION OF DRIFTING WAVE-ICE BUOY FOR OCEAN DEPLOYMENT<br><b>Takehiko Nose, The University of Tokyo, Japan</b>   | BENEFICIAL USE OF DREDGED MATERIAL AND FATE OF PLACED SAND USING A HYBRID COSMOS-XBEACH SEDIMENT BUDGET MODEL<br><b>Rebecca Quan, Baird, Australia</b>            | DOES COASTAL WETLAND RESTORATION WORK AS A CLIMATE CHANGE ADAPTATION STRATEGY? THE CASE OF THE SOUTH-EAST OF SICILY COAST<br><b>Massimiliano Marino, University of Catania, Italy</b> |
| 1240 - 1300 | WAVE OVERTOPPING REDUCTION BY MODULAR CONCRETE ARMOUR UNITS<br><b>Pieter Bakker, DMC, The Netherlands</b>  | AN INTER-COMPARISON STUDY OF GREEN AND GRAY STRUCTURE EFFECTS ON OVERLAND FLOW FLOODING AND FORCE ON COASTAL BUILDINGS<br><b>Sungwon Shin, Hanyang University, South Korea</b> | UNRAVELLING THE DRIVERS OF SHORELINE CHANGE<br><b>Arjen Luijendijk, Deltares / TU Delft, Netherlands</b>   |  | ESTIMATING ALONGSHORE SEDIMENT TRANSPORT FROM EDGED ACCESS CHANNELS<br><b>Bart Roest, KU Leuven, Belgium</b>  |   |
| 1300 - 1400 | <b>Lunch</b>   |  |  |  |   |   |
| 1400 - 1600 | <b>Technical Sessions</b>  |  |  |  |   |   |
| Session     | <b>Session 7<br/>Tsunami 1</b>   | <b>Session 8<br/>Wave Overtopping 2</b>  | <b>Session 9<br/>Satellite Remote Sensing 2</b>  | <b>Session 10<br/>Wind Waves 1</b>   | <b>Session 11<br/>Runup and Swash</b>   | <b>Session 12<br/>Nature-Based Solutions 2</b>  |
| Room        | <b>Room C2.1</b>   | <b>Room C2.2</b>   | <b>Room C2.3</b>   | <b>Room C2.4</b>   | <b>Room C2.5</b>  | <b>Pymont Theare</b>  |
| Chair       | <b>Chari Pattiaratchi</b>  | <b>Marcel van Gent</b>   | <b>Kilian Vos</b>  | <b>Jane McKee Smith</b>  | <b>Tom Baldock</b>  | <b>Bill Dally</b>   |
| 1400 - 1420 | 3D NUMERICAL MODELLING OF FIVE SUBMARINE LANDSLIDE SCENARIOS IN PERTH CANYON, AUSTRALIA TO ASSESS TSUNAMIGENIC HAZARD<br><b>Elise Buller, University of Newcastle, Australia</b>                               | COMPARING RESPONSE-BASED AND EVENT-BASED OVERTOPPING DESIGN<br><b>Abigail Stehno, U.S. Army Corps of Engineer Research and Development Center (ERDC), United States</b>        |  | A 40 YEAR WAVE CLIMATOLOGY OF SOUTH EAST QUEENSLAND, USING MODELLED AND IN-SITU WAVE OBSERVATIONS<br><b>Elysia Andrews, Queensland Government Hydraulics Laboratory, Australia</b> | WAVE TRANSFORMATION AND RUNUP VARIABILITY DUE TO WAVE PHASE UNCERTAINTY<br><b>Spicer Bak, USACE - ERDC, Field Resarch Facility, United States</b>                 | UNDERSTANDING THE BENEFITS AND LIMITATIONS OF NATURE BASED SOLUTIONS<br><b>Nigel Pontee, Jacobs, United Kingdom</b>   |
| 1420 - 1440 | LANDSLIDE TSUNAMI HAZARD ASSESSMENT: A NUMERICAL MODEL FOR THE SIMULATION OF MULTIPLE LANDSLIDE-INDUCED TSUNAMIS SCENARIOS IN A MONTE CARLO FRAMEWORK<br><b>Claudia Cecioni, University of Roma TRE, Italy</b> | WAVE OVERTOPPING MITIGATION BY A VERTICAL WALL OR A WAVE RETURN WALL AT THE END OF A PITCHED ROCK SLOPE<br><b>Martin Klabbers, Advisian Pty Ltd, Australia</b>                 | MAPPING COASTAL TYPOLOGY USING PUBLICLY AVAILABLE EARTH OBSERVATION DATA AND DEEP NEURAL NETWORKS<br><b>Floris Calkoen, Deltares, Netherlands</b>  | UNRAVELING MULTIMODAL NEARSHORE WIND-WAVE FIELDS ON THE DUTCH SHOREFACE<br><b>Stefan Aarninkhof, TU Delft, Netherlands</b>   | HOW BEACH STATE INFLUENCES WAVE RUNUP ON A PERCHED BEACH IN SOUTHWESTERN AUSTRALIA<br><b>Carly Portch, The University of Western Australia, Australia</b>         | COLLABORATIVE LIVING LABORATORIES TO INFORM CANADIAN DESIGN GUIDANCE FOR COASTAL NATURE-BASED SOLUTIONS<br><b>Enda Murphy, National Research Council Canada, Canada</b>               |
| 1440 - 1500 | THREE-DIMENSIONAL PHISICAL MODELING OF LANDSLIDE-GENERATED TSUNAMIS<br><b>Tomoyuki Takabatake, Kindai University, Japan</b>  | EXPERIMENTAL STUDY ON WAVE OVERTOPPING OF DOUBLE PARAPET TYPE SEAWALL<br><b>Naoki Tsuruta, Port and Airport Research Institute, Japan</b>                                      | S2SHORES: A PYTHON LIBRARY FOR ESTIMATING COASTAL BATHYMETRY<br><b>Erwin Bergsma, CNES, France</b>   | THE PHYSICAL PROCESSES ACTIVE IN TROPICAL CYCLONE WAVE GENERATION<br><b>Ian Young, University of Melbourne, Australia</b>  | ESTIMATION OF RANDOM WAVE RUN-UP USING A SPECTRAL TRANSFER FUNCTION<br><b>Takenori Shimozono, The University of Tokyo, Japan</b>                                  | NATURE-BASED FLOOD RISK REDUCTION VIA MULTIPLE LINES OF DEFENSE<br><b>Vincent Vuik, Delft University of Technology, Netherlands</b>   |
| 1500 - 1520 | SEISMIC AND TSUNAMI HAZARD ASSESSMENT OF COASTAL BUILDINGS IN WEST COAST OF JAPAN<br><b>Takuya Miyashita, Kyoto University, Japan</b>  | WAVE OVERTOPPING CHARACTERISTICS FOR A DOUBLE VERTICAL WALL AND THE EFFECT OF PARAPETS<br><b>Bart-Jan van der Spek, C International, Netherlands</b>                           | ASSESSING SHORELINE EDGE DETECTION FOR THE IMPROVEMENT OF COASTAL IMAGING TECHNIQUES<br><b>Siegmond Nuyts, Cnrs, France</b>  | APPLICABILITY OF ATMOSPHERIC REANALYSIS DATA FOR THE REPRODUCTION OF TYPHOON-INDUCED STORM SURGE IN JAPAN<br><b>Mangala Amunugama, Ecoh Corporation, Japan</b>                     | SWASH FLOWS GENERATED BY A TRAIN OF SOLITARY WAVES ON A PLANAR SLOPE<br><b>In Mei Sou, National University of Singapore, Singapore</b>                            | FIRST PROJECT OF BIODIVERSITY RESTORATION OF COASTAL AREAS IN POLAND<br><b>Grzegorz Rozynski, Institute of Hyo-engineering, Polish Academy of Sciences, Poland</b>                    |
| 1520 - 1540 | INSHORE TSUNAMI HAZARD INCLUDING BATHYMETRIC AND EPISTEMIC UNCERTAINTY – A DESIGN METHODOLOGY<br><b>Zachariah Couper, BMT Global, Australia</b>  | INFLUENCE FACTORS FOR CREST WIDTH, ROUGHNESS AND WAVE PERIOD ON OVERTOPPING OF RUBBLE MOUND STRUCTURES<br><b>Koen Van Doorslaer, Deme, Belgium</b>                             | SATELLITE-DERIVED SHORELINE DYNAMICS AT THE GERMAN BALTIC SEA<br><b>Jan Tiede, Leibniz University Hanover, Deutschland</b>   | COMPARISON OF FIELD AND FORECAST METOCEAN DATA IN THE GERMAN BIGHT<br><b>Lukas Froehling, Leibniz University Hannover, Germany</b>   | THE CONTRIBUTION OF WAVE RUNUP TO COASTAL FLOODING AT NORFOLK (VA,USA) DURING EXTREME EVENTS<br><b>Christopher Lashley, University of Delaware, United States</b> | A GLOBAL CHARACTERISATION OF COASTAL REGIONS TO GUIDE NATURE-BASED SOLUTIONS TO SEA TURTLE NESTING BEACHES<br><b>Jakob Christiaanse, Delft University of Technology, Netherlands</b>  |
| 1540 - 1600 | TSUNAMI RUN-UP CONSIDERING TIME VARIATION OF DENSITY OF INUNDATION WATER<br><b>Hideo Matsutomi, Chuo University, Japan</b>   | WAVE OVERTOPPING AT DIKES AND BREAKWATERS UNDER OBLIQUE WAVE ATTACK<br><b>Marcel Van Gent, Tu Delft   Deltares, Netherlands</b>  | SATELLITE DERIVED BATHYMETRY FOR MONITORING NEARSHORE DYNAMICS<br><b>Etiënne Kras, Deltares, Netherlands</b>   | MULTI-SCALE WAVE MODELLING; FIELD VALIDATION IN FAXE BAY, DENMARK<br><b>Ms Anna Adell, Lund University, Sweden</b>   | INVESTIGATION OF DIRECTIONAL SPREADING EFFECT ON WAVE RUN-UP USING SWASH<br><b>Tomohiro Suzuki, Flanders Hyaulics Research, Belgium</b>                           | BIODIVERSITY BENEFITS OF SCALING UP MARINE ECO-ENGINEERING<br><b>Melanie Bishop, Macquarie University, Australia</b>  |
| 1600 - 1730 | <b>Poster Session and Social Reception</b><br>Room C2.6 and Pymont Foyer, Level 2, International Convention Centre Sydney  |  |  |  |   |   |

**Tuesday 06 December 2022**

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|-------------|--|--|---|--|---|--|
| 0730 - 1800 | Registrations Open   |  |   |  |   |  |
| 0830 - 1030 | Technical Sessions   |  |   |  |   |  |
| Session     | Session 13<br>Berm, Dune and Beach Erosion   | Session 14<br>Numerical Modelling - Waves  | Session 15<br>Reef Hyodynamics  | Session 16<br>Wave - Structure Impacts and Interactions 1  | Session 17<br>Wave Overtopping Hazards and Monitoring   | Session 18<br>Nature-Based Solutions 3   |
| Room        | Room C2.1  | Room C2.2  | Room C2.3   | Room C2.4  | Room C2.5   | Pyrmont Theare   |
| Chair       | James Carley   | David Taylor   | Javier Lopez Lara   | Ben Modra  | Stephan Grilli  | Stefan Aarninkhof  |
| 0830 - 0850 | BERM MIGRATION UNDER SCALED STORM EVENTS<br>Emily Chapman, University of Delaware, United States   | 3D VELOCITY FIELDS WITH 2DH NUMERICAL STABILITY: A 3D ANALYTICAL-NUMERICAL MODULE FOR 2DH NUMERICAL MODELS<br>Thalles Araujo, University of Western Australia   Federal University of Rio de Janeiro, Brazil | THE EFFECT OF REEF GEOMETRY ON BREAKING WAVE SHAPE. COMPUTATIONAL AND FIELD DATA COMPARATIVE STUDY.<br>Adam Fincham, University of Southern California, United States | CONFINED-CREST IMPACT: THE INFLUENCE OF THE TOE BERM ON THE IMPULSIVE LOAD CONDITIONS<br>Myrta Castellino, Sapienza University of Rome, Italy              | HUMAN STABILITY ON SLOPES UNDER OVERTOPPING WAVES<br>Davide Wuthrich, Delft University of Technology, Netherlands                                       | PRESERVING THE LAST OF ILLINOIS' SHORELINE: ECOLOGICALLY-DRIVEN SHORLINE STABILIZATION TECHNIQUES FOR INLAND LAKES<br>Margaret Boshek, Moffatt & Nichol, United States                         |
| 0850 - 0910 | OBSERVATIONS FROM A CONTROLLED DUNE EROSION EXPERIMENT UNDER VARIABLE WATER LEVELS, WAVES, AND INTERNAL DUNE MOISTURE CONTENT<br>Stefano Conti, Water Research Laboratory UNSW Sydney, Australia | THE NUMERICAL RECREATION OF EXPERIMENTALLY GENERATED NONLINEAR IRREGULAR WAVES<br>Samuel Draycott, University of Manchester, United Kingdom  | ON-REEF CYCLONIC WAVE CLIMATE THROUGHOUT THE GREAT BARRIER REEF<br>Dave Callaghan, University of Queensland, Australia  | VIOLENT AND IMPULSIVE WAVE OVERTOPPING AT VERTICAL WALLS WITH LARGE FREEBOARDS<br>Leopoldo Franco, University of Roma Tre, Italy                           | COASTAL WAVE OVERTOPPING: NEW NOWCAST AND MONITORING TECHNOLOGIES<br>Jenny Brown, National Oceanography Centre, United Kingdom                          | NATURE-BASED SOLUTIONS ON MEGA-BIODIVERSE COASTS: EXPERIENCES AND CHALLENGES IN MEXICO<br>Rodolfo Silva-Casarin, Universidad Nacional Autonoma de Mexico, Mexico                               |
| 0910 - 0930 | COUPLED MODELLING OF DUNES AND COASTS – THE CODAC MODEL<br>Caroline Hallin, TU Delft / Lund University, Sweden   | ASSESSING A COST-EFFICIENT METHODOLOGY FOR LONG TERM WAVE COMPUTATION<br>Giovanni Besio, University of Genoa, Italy  | WAVE TRANSMISSION OVER A WIDE NEARSHORE REEF<br>Jarrod Dent, Baird, Australia   | SUB-NAPPE AIR CAVITY PRESSURE DURING OVERFLOW OF A VERTICAL STRUCTURE<br>Taeksang Kim, University of Michigan, United States                               | DIRECT HAZARD FROM WAVE OVERTOPPING: A REVIEW AND FORWARD LOOK<br>Tom Bruce, University of Edinburgh, United Kingdom                                    | FROM EXPERIMENT TO INTERVENTION: SCALING UP MARINE ECO-ENGINEERING<br>Mariana Mayer Pinto, UNSW, Australia   |
| 0930 - 0950 | PARAMETERIZING DUNE RESILIENCE FROM COLLISION THROUGH INUNDATION<br>Matthew Janssen, Stevens Institute of Technology, United States  | NONHYDROSTATIC AND MESH-FREE COMPUTATIONAL FLUID DYNAMICS MODEL COMPARISONS OF SURF ZONE HYDRODYNAMICS BY PLUNGING IRREGULAR WAVES<br>Ryan Lowe, University of Western Australia, Australia                  | WAVE TRANSFORMATION ON CORAL REEFS: COMPARISON OF A CFD MODEL AND PHYSICAL MODEL TESTS OF A MALDIVIAN REVETMENT.<br>Tony Bergoe, Niras, Denmark                       | ON THE BEHAVIOR OF A TETHERED CYLINDER ARRAY UNDER IRREGULAR WAVES<br>Matteo Lorenzo, Università Degli Studi Di Torino, Italy                              | FAIRY BOWER OVERTOPPING MONITORING AND DECISION SUPPORT SYSTEM<br>Ian Coghlan, UNSW Water Research Laboratory, Australia                                | GRAY LEADS TO GREEN IN THE BLUE: BUILDING INFRASTRUCTURE TO ENHANCE COASTAL HABITAT<br>Tundi Agardy, Baird & Associates, United States   |
| 0950 - 1010 | EROSION AND ACCRETION MECHANISM OF DUNE BEACH SYSTEM DURING AN ENTIRE STORM: LARGE SCALE WAVE FLUME TEST AND NUMERICAL SIMULATION<br>Eunju Lee, Hanyang University, South Korea                  | COMPARATIVE ASSESSMENT OF NON-CONSERVATIVE AND CONSERVATIVE RANS FORMULATIONS FOR COASTAL APPLICATIONS INVOLVING BREAKING WAVES<br>Shaswat Saincher, Indian Institute of Technology Madras, India            | THE INFLUENCE OF CORAL REEF SPUR AND GROOVE MORPHOLOGY ON WAVE ATTENUATION<br>Lachlan Perris, University of Sydney, Australia   | ANALYSIS ON FAILURE CAUSES OF DOCK DUE TO ABNORMAL WIND WAVES<br>Kyu-Tae Shim, Catholic Kwandong University, South Korea                                   | IMPACT OF INCLUDING OVERTOPPING IN HYDYNAMIC MODELLING FOR COASTAL INUNDATION IN PORT PHILLIP BAY<br>Raymond Cohen, CSIRO Data61, Australia             | REINFORCING ECOSYSTEM ENGINEERS WITH ENHANCED VEGETATION AND AN ARTIFICIAL REEF ALONG THE US RHODE ISLAND COASTAL BARRIER SYSTEMS<br>Annette Grilli, University of Rhode Island, United States |
| 1010 - 1030 | WAVE CHARACTERISTICS CAUSING COASTAL DAMAGE AROUND THE TYPHOON STORM ZONE: ANALYSIS AT OSATO COAST FOR TYPHOON NO. 19, 2019<br>Kosuke Nakagawa, Tokushima University, Japan                      | YEPPOON SURF POOL: FULL-SCALE VALIDATION OF A CFD MODEL<br>Alireza Valizadeh, DHI Water And Environment, Australia   |   | FIELD MEASUREMENTS OF WAVE INTERACTIONS WITH A DIKE ON A SHALLOW FORESHORE USING AN "ARTIFICIAL DIKE" CONCEPT<br>Vincent Gruwez, Ghent University, Belgium | THE EFFECT OF WIND STRESS ON WAVE OVERTOPPING ON VERTICAL SEAWALL<br>Sara Tuozzo, University of Naples Federico II, Italy                               | SEASONAL DRIVERS FOR MANGROVE SEEDLING ESTABLISHMENT<br>Rik Gijssman, University of Twente, Netherlands  |
| 1030 - 1100 | Morning Tea  |  |   |  |   |  |
| 1100 - 1300 | Technical Sessions   |  |   |  |   |  |
| Session     | Session 19<br>Dune Erosion, breaching and Recovery   | Session 20<br>Wind Waves 2   | Session 21<br>Coastal Sediments and Transport 1   | Session 22<br>Shore Protection Structures  | Session 23<br>Wave - Structure Impacts and Interactions 2   | Session 24<br>Coastal Flooding and Inundation 2  |
| Room        | Room C2.1  | Room C2.2  | Room C2.3   | Room C2.4  | Room C2.5   | Pyrmont Theare   |
| Chair       | Arjen Luijendijk   | Ian Young  | Peter Nielsen   | Chris Bender   | Kojiro Suzuki   | Sungwon Shin   |
| 1100 - 1120 | CART MODEL FOR PREDICTING DUNE EROSION BASED ON STORM INTENSITY AND BEACH MORPHOLOGY<br>Jon Miller, Stevens Institute of Technology, United States   | MODELLED AND OBSERVED IMPACT OF THE APRIL 2021 SOUTHERN OCEAN STORM<br>Alberto Meucci, University of Melbourne, Australia  | ASSESSMENT OF WAVE-INDUCED MOMENTARY SEABED LIQUEFACTION<br>Cheng-Jung Hsu, National Academy of Marine Research, Taiwan   | BED PROTECTION FOR EXTREME STORM SURGE INFLOW THROUGH FAILING SLUICEGATES<br>Richard de Rover, Delta Marine Consultants, Netherlands                       | PHYSICAL EXPERIMENTS ON OVERHANGING PARAPETS UNDER NON-BREAKING WAVE CONDITIONS<br>Dimitrios Dermentzoglou, Delft University of Technology, Netherlands | WHAT DRIVES EXTREME EVENTS? EVALUATING THE MAJOR CONTRIBUTORS TO TOTAL WATER LEVELS ALONG THE U.S. ATLANTIC COAST<br>Gabrielle Quadrado, University of Florida, United States                  |

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| 1120 - 1140 | STRENGTHENING COASTAL DEFENCE WITH ARTIFICIAL DUNES<br><b>Pieter Rauwoens, KU Leuven, Belgium</b>   | MODELING OF WIND-WAVE GROWTH IN STRONG WIND CONDITIONS BASED ON PHASE-RESOLVING WAVE MODEL<br><b>Shoko Sato, Kyoto University, Japan</b>   | A SIMPLE LABORATORY CALIBRATION FOR MITIGATING SEAWATER EFFECTS ON SOIL MOISTURE SENSORS<br><b>Nick Brilli, Virginia Tech, United States</b>   | SCOUR PROCESSES AROUND A COLUMN ON A SLOPED BEACH INDUCED BY BROKEN SOLITARY WAVES<br><b>Alexander Schendel, Ludwig-Franzius-Institute, Leibniz University Hannover, Germany</b> | IMPLICATIONS OF SECOND-ORDER WAVE GENERATION FOR USE IN WAVE-STRUCTURE RESPONSE EXPERIMENTS<br><b>William Mortimer, Plymouth University, United Kingdom</b>  | AN EFFICIENT HYBRID IMPACT SWELL INUNDATION SYSTEM FOR SMALL ISLANDS<br><b>Laura Cagigal, Universidad de Cantabria, Spain</b>                   |
| 1140 - 1200 | THE EFFECT OF WAVE OBLIQUITY ON DUNE EROSION: A FIELD EXPERIMENT<br><b>Paul Van Wiechen, Delft University of Technology, Netherlands</b>                                      | ADVANCES IN UNSTRUCTURED WAVEWATCH III AND APPLICATIONS TO NEARSHORE WAVES<br><b>Jane McKee Smith, Us Army Engineer Research And Development Center, United States</b>                 | PREDICTING NEAR-BED SEDIMENT TRANSPORT THROUGH PARTICLE IMAGE VELOCIMETRY<br><b>Caroline Hoch, Florida Institute of Technology, United States</b>                                    | FRAGILITY ANALYSIS OF DUNES REINFORCED WITH GEOSYNTHETIC SAND CONTAINERS<br><b>Chris Baxter, University of Rhode Island, United States</b>                                       | WAVE INDUCED LOADS ON RECURVES ATOP A SEAWALL ON A SLOPED SEABED<br><b>Dimitris Stagonas, University of Cyprus, Cyprus</b>   | THE EFFECT OF HARBOR DEVELOPMENTS ON HIGH-TIDE FLOODING IN MIAMI (FL)<br><b>Francesco De Leo, University of Genoa, Italy</b>                    |
| 1200 - 1220 | OBSERVATION AND NUMERICAL MODELING OF A DUNE OVERWASH AND BREACHING EVENT<br><b>Maria Winters, University of California, Los Angeles, United States</b>                       | COMPUTATIONALLY EFFICIENT TROPICAL CYCLONE PARAMETRIC WIND-WAVE MODEL<br><b>Guisela Grossmann-Matheson, The University of Melbourne, Australia</b>                                     | EFFECT OF GRAIN SHAPE ON BEDLOAD TRANSPORT OF CORAL GRAVELS UNDER TURBULENT FLOW<br><b>Lilei Mao, The University of Tokyo, Japan</b>   | EROSION MITIGATION DESIGN IN THE ARCTIC CONSIDERING CLIMATE CHANGE IMPACTS<br><b>Fred Scott, Baird, Canada</b>   | TSUNAMI WAVE LOADING ON A STRUCTURAL ARRAY PARTIALLY SHELTERED BY A SEAWALL<br><b>Zhongduo Zhang, University of Notre Dame, United States</b>  | MULTIVARIATE COASTAL FLOOD RISK ALONG THE US PACIFIC<br><b>Joseph Lucey, University of California, Los Angeles, United States</b>               |
| 1220 - 1240 | QUANTIFYING THE WAVE-DRIVEN RECOVERY OF SANDY BEACHES FOLLOWING STORM EROSION<br><b>Matthew Phillips, Manly Hyaulics Laboratory, Australia</b>                                | REVISITING WAVE PROPAGATION UNDER AIR FLOW IN COASTAL AREAS<br><b>Edgar Mendoza-Baldwin, Universidad Nacional Autonoma De Mexico, Mexico</b>   | TUMBLING EXPERIMENT FOR THE ESTIMATION OF ABRASION AND MASS LOSS OF COASTAL SEDIMENTS FROM AN ARTIFICIAL COARSE-CLASTIC BEACH<br><b>Luca Martinelli, University of Padova, Italy</b> | THE INFLUENCE OF SUBMERGED COASTAL STRUCTURES ON NEARSHORE HYDYNAMICS<br><b>Renan Silva, University of Western Australia, Australia</b>  | ON WAVE TRANSMISSION OF RUBBLE-MOUND SUBMERGED BREAKWATERS IN LARGE TIDAL EXCURSION<br><b>Elisa Leone, University of Salento, Italy</b>  | THE TIDE IS HIGH: NEW INSIGHTS ON COASTAL FLOODING TRENDS AND FUTURES<br><b>Ben Hague, Australian Bureau of Meteorology, Australia</b>          |
| 1240 - 1300 | THE SELECTION AND DESIGN OF VEGETATED DUNES AS PREFERRED MAIN COASTAL PROTECTION SYSTEM FOR BEIRA, MOZAMBIQUE<br><b>Odelinde Nieuwenhuis, Royal HaskoningDHV, Netherlands</b> | WAVE HINDCAST IN THE PACIFIC OCEAN OF CENTRAL AMERICA BY USING UNSTRUCTURED MESH<br><b>Manuel Corrales Gonzalez, University of Genoa, Italy</b>  | INCLUSION OF CONTACT FRICTION FOR PARTICLE-BASED SIMULATION OF SEDIMENT TRANSPORT OVER MOBILE BED<br><b>Zhe Cao, The University of Liverpool, United Kingdom</b>                     | STABILITY OF TEMPORARILY PLACED LARGE SANDBAGS AGAINST WAVES<br><b>Kojiro Suzuki, Port And Airport Research Institute, Japan</b>   | TECHNOLOGY-DRIVEN APPROACH TO THE MODELLING AND DESIGN OF ARTIFICIAL SURF REEFS<br><b>Evan Watterson, Bluecoast Consulting Engineers, Australia</b>  | MULTI-HAZARD RISK ASSESSMENT FOR TONGATAPU - A COASTAL INUNDATION LENS<br><b>Edward Rowe, Arup, Australia</b>                                   |
| 1300 - 1400 | <b>Lunch</b>  |  |  |  |  |   |
| 1400 - 1620 | <b>Technical Sessions</b>   |  |  |  |  |   |
| Session     | <b>Session 25<br/>AI and Deep Learning</b>  | <b>Session 26<br/>Estuary Hyodynamics</b>  | <b>Session 27<br/>Numerical Modelling 1</b>  | <b>Session 28<br/>Channel Management</b>   | <b>Session 29<br/>Structure Design and Performance</b>   | <b>Session 30<br/>Coastal Monitoring</b>  |
| Room        | <b>Room C2.1</b>  | <b>Room C2.2</b>   | <b>Room C2.3</b>   | <b>Room C2.4</b>   | <b>Room C2.5</b>   | <b>Pymont Theare</b>  |
| Chair       | <b>Takaaki Shigematsu</b>   | <b>Alessano Romano</b>   | <b>Vincent Gruwez</b>  | <b>Liliana Pinheiro</b>  | <b>Kane Satterthwaite</b>  | <b>Annette Grilli</b>   |
| 1400 - 1420 | WIND AND WAVE TRAINED ARTIFICIAL NEURAL NETWORKS FOR THE FORECASTING OF WAVE CLIMATE IN HARBOUR AREA<br><b>Luca Cavallaro, University of Catania, Italy</b>                   | EFFECTS OF ESTUARY'S GEOMETRY AND BATHYMETRY ON EXTREME WATER LEVELS, STUDY CASE: MANUKAU HARBOUR, NEW ZEALAND.<br><b>Wagner Luis Langer Costa, University of Waikato, New Zealand</b> | COMPARISON OF NUMERICAL AND EMPIRICAL ESTIMATES OF WAVE CONDITIONS IN THE LEE OF A DETACHED BREAKWATER<br><b>Jim Churchill, Baird Australia, Australia</b>                           | OPTIMIZING MAINTAINED BED LEVELS IN PORTS BASED ON PORT ACCESSIBILITY<br><b>Floor Bakker, Delft University of Technology, Netherlands</b>  | STABILITY ANALYSIS OF OLD BREAKWATERS: CASE STUDIES OF FAILURES AND SUCCESSES<br><b>William Allsop, William Allsop Consulting Ltd, United Kingdom</b>  | CAN APPLE LIDAR CAMERAS BE RELIABLY USED FOR COASTAL MONITORING?<br><b>Kristen Splinter, Water Research Laboratory, UNSW Sydney, Australia</b>  |
| 1420 - 1440 | PHYSICS-INFORMED DEEP LEARNING OF NEARSHORE WAVE PROCESSES<br><b>Qin Chen, Northeastern University, United States</b>   | ANISOTROPIC EDDY VISCOSITY - A BENCHMARK CASE STUDY IN AN IDEALISED TIDAL ESTUARY<br><b>Greg Collocutt, BMT (TUFLOW) , Australia</b>   | NUMERICAL EXPERIMENTS ON OVERHANGING PARAPETS UNDER NON-BREAKING WAVE CONDITIONS<br><b>Paolo De Girolamo, Sapienza University of Rome, Italy</b>                                     | PORT OF NEWCASTLE, NSW, AUSTRALIA - MAINTENANCE DREDGING AND UNCONFINED SEA DISPOSAL OF EDGE MATERIAL<br><b>Greg Britton, Royal HaskoningDHV, Australia</b>                      | A COMPOSITE MODELLING APPROACH FOR THE RETROFITTING AND REHABILITATION OF AN HISTORICAL COASTAL ASSET<br><b>Corrado Altomare, Universitat Politècnica De Catalunya-BarcelonaTech, Spain</b>                  | COASTSNAP: A GLOBAL CITIZEN SCIENCE PROGRAM TO MONITOR CHANGING COASTLINES<br><b>Mitchell Harley, UNSW Water Research Laboratory, Australia</b> |
| 1440 - 1500 | A PREDICTIVE EQUATION FOR WAVE SETUP THROUGH THE USE OF GENETIC PROGRAMMING<br><b>Charline Dalinghaus, University of Auckland, New Zealand</b>                                | SEA LEVEL RISE IMPLICATIONS FOR ESTUARINE MODELLING AND MANAGEMENT<br><b>Danial Khojasteh, UNSW Water Research Laboratory, Australia</b>   | A VALIDATION OF WAVE LOADS ON CREST WALLS ON TOP OF COMPOSITE BREAKWATERS USING OPENFOAM<br><b>Marisol Irias Mata, Deltares, Netherlands</b>   | CORPUS CHRISTI SHIP CHANNEL DEEPENING PROJECT: OVERVIEW & MODELING APPROACH TO ASSESS ENVIRONMENTAL IMPACTS<br><b>Rob Nairn, Baird and Associates, Canada</b>                    | DEALING WITH AN EXISTENTIAL THREAT FROM CLIMATE CHANGE AT EBEYE, MARSHALL ISLANDS: STRUCTURAL PROTECTION AGAINST STORM EROSION AND WAVE OVERTOPPING<br><b>Patrick Lawless, Royal HaskoningDHV, Australia</b> | MULTI-PLATFORM MONITORING OF COASTAL EROSION AT A POCKET BEACH<br><b>Bapentire Donatus Angnuureng, University of Cape Coast, Ghana</b>          |

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| 1500 - 1520                       | SIGNIFICANT WAVE HEIGHT PREDICTION USING TRANSFER LEARNING<br>Yuki Obara, Niigata University, Japan  | THE IMPACT OF RESTORED FRESHWATER INFLOW ON TIDAL DISTORTION IN A SHALLOW ESTUARY<br>Mojgan Razzaghi, University of Waikato, New Zealand         | COMPUTER SIMULATION OF WAVE OVERTOPPING RATE ON VERTICAL WALL BY BOUSSINESQ WAVE MODEL<br>Moon Su Kwak, Civil Engineering of Myongji College, South Korea  | INVESTIGATION INTO HOUSTON SHIP CHANNEL SHOALING AT THE BAYPORT FLARE IN GALVESTON BAY<br>Josh Joubert, Texas A&M University, United States                               | REDESIGN OF TUTUKAKA MARINA FOR TSUNAMI RESILIENCE<br>Jose Borrero, eCoast Marine Consulting and Research, New Zealand  | BIG COASTAL MANAGEMENT REQUIRES BIG COASTAL MONITORING: TWO DECADES OF OPERATIONAL COASTAL IMAGING AT AUSTRALIA'S GOLD COAST<br>Christopher Drummond, UNSW Water Research Laboratory, Australia |
| 1520 - 1540                       | RECOVERY OF SURFACE WAVES FROM BOTTOM PRESSURE BY NEURAL NETWORK WITH BISPECTRUM<br>Hiyori Yoshino, University, Japan  | HYDRODYNAMIC MODELING OF AN INLET WITH ESTUARINE SHORELINE PROTECTION<br>Anna Wargula, US Naval Academy, United States                           | A CLOSED-FORM SOLUTION FOR INTERACTIONS BETWEEN WAVES AND AN ARRAY OF FISH NET CAGES<br>Mingyuan Ma, Griffith University, Australia  | MECHANICS OF SHOALING AT THE HOUSTON SHIP CHANNEL'S BAYPORT FLARE<br>Patrick Kerr, US Army Corps of Engineers, United States  | ANCIENT AND CONTEMPORARY COASTAL ENGINEERING STRUCTURES UNIQUE TO AUSTRALIA<br>James Carley, UNSW Water Research Laboratory, Australia                                    | STUDY OF METHOD FOR DETECTING OCCURANCE OF RIP CURRENT USING IMAGE ANALYSIS<br>Ryo Shimada, Chuo University, Japan  |
| 1540 - 1600                       | ONE DAY AHEAD WAVE PREDICTIONS USING A HYBRID ALGORITHM OF LONG-SHORT TERM MEMORY AND NEURAL NETWORK FOR MARINE CONSTRUCTIONS<br>Sooyoul Kim, Kumamoto University, Japan   | HYDRODYNAMIC CLASSIFICATION OF ESTUARIES: CHALLENGES AND ALTERNATE APPROACHES<br>Hannah Power, University of Newcastle, Australia                | EXAMINATION OF ANALYSIS METHOD FOR HYAULIC MODEL EXPERIMENT UTILIZING RGBD IMAGES AND DUALSPHYSICS<br>Yusei Miyashita, Coastal Engineering Group, Graduate School of Science and Technology, Niigata University, Japan | HIGHWAYS IN THE COASTAL ENVIRONMENT: NEW USA GUIDANCE<br>Scott Douglass, South Coast Engineers, United States   | RECENT ADVANCES IN TSUNAMI DESIGN OF COASTAL STRUCTURES<br>Ian Robertson, University of Hawaii, United States   | SANDSNAP – AMASSING A BEACH GRAIN SIZE DATABASE IN THE UNITED STATES<br>Brian McFall, US Army Corps of Engineers - Coastal & Hyaulics Laboratory, United States                                 |
| 1600 - 1620                       | APPLICATION OF DEEP LEARNING OBJECT DETECTION TO SURFING WAVE QUALITY<br>Edward Atkin, eCoast, New Zealand   | INFLUENCE OF SALINITY WEDGE ON FLOW AND SEDIMENT DIVERSION THROUGH A COMPLEX DELTAIC SYSTEM<br>Thomas Everett, Mott MacDonald, United States     | MONTE CARLO SIMULATION OF BARRIER-ISLAND SYSTEMS AND TSUNAMI HAZARDS<br>Jennifer Irish, Virginia Tech, United States   | EQUILIBRIUM MORPHOLOGY MODEL APPLIED THROUGHOUT THE EXTENSIVE NAVIGATION CHANNEL NETWORK OF THE GOLD COAST WATERWAYS, AUSTRALIA<br>Jesper Nielsen, Seaport OPX, Australia | FIRST APPLICATIONS OF XBLOCPLUS : EXPERIENCES FROM AFLUITDIJK AND VISTULA SPIT PROJECTS<br>Zi Qian Yang, Delta Marine Consultants, Singapore                              | APPLICATION OF HISTORICAL DATA FROM SATELLITE IMAGERY TO IMPROVE UNDERSTANDING OF COMPLEX NEARSHORE DYNAMICS<br>Edward Albada, EOMAP, West Indies   |
| 1620 - 1645                       | Afternoon Tea  |  |  |   |   |   |
| 1700 - 1830                       | Women in Coastal Engineering Event<br>Pymont Theatre, Level 2, International Convention Centre Sydney  |  |  |   |   |   |
| <b>Wednesday 07 December 2022</b> |  |  |  |   |   |   |
| 0800 - 1300                       | Registrations Open   |  |  |   |   |   |
| 0830 - 0920                       | Plenary Session<br>Pymont Theare   |  |  |   |   |   |
| 0830 - 0920                       | Introduction<br>Keynote Address: The History and Future of Coastal Observing at the USACE Field Research Facility (FRF)<br>Katherine L. Brodie<br>Senior Research Oceanographer, Field Research Facility<br>U.S. Army Engineer Research and Development Center |  |  |   |   |   |
| 0920 - 1000                       | Morning Tea  |  |  |   |   |   |
| 1000 - 1200                       | Technical Sessions   |  |  |   |   |   |
| Session                           | Session 31<br>Turbulence and Mixing  | Session 32<br>Fluid Structure Interaction  | Session 33<br>Numerical Modelling 2  | Session 34<br>Coastal Management 1  | Session 35<br>Seabed and Sediments  | Session 36<br>Climate Change and Risk   |
| Room                              | Room C2.1  | Room C2.2  | Room C2.3  | Room C2.4   | Room C2.5   | Pymont Theare   |
| Chair                             | Claudio Neves  | Marion Tissier   | Christoph Troch  | Yoshimitsu Tajima   | Pushpa Dissanayake  | Jenny Brown   |
| 1000 - 1020                       | EXPERIMENTAL STUDY OF LAGRANGIAN MIXING IN WEAKLY DISSIPATIVE TIDAL CHANNELS<br>Annalisa De Leo, Università Degli Studi Di Genova, Italy   | NUMERICAL STUDY ON THE INTERACTION BETWEEN PERIODIC WAVES AND A FLEXIBLE WALL<br>Zhengyu Hu, National University of Singapore, Singapore         | MULTIPHASE SPH SIMULATION FOR INCHAMBER IMPACT PRESSURE ON VERTICAL BREAKWATER WITH WAVE ABSOPTION CHAMBER<br>Krisna Pawitan, Princeton University, United States  | EXPERIMENTAL ANALYSIS OF HYBRID SOLUTIONS FOR COASTAL PROTECTION<br>Maria Maza, IHCantabria, Universidad de Cantabria, Spain  | SCALE EFFECT IN LOCAL SCOUR AROUND AN OFFSHORE PILE<br>Yota Enomoto, Chuo University, Japan   | INSURABILITY AND SUSTAINABLE RISK MANAGEMENT OF 'ACTIONS OF THE SEA' IN A CHANGING CLIMATE<br>Joanna Aldridge, IAG, Australia   |
| 1020 - 1040                       | FIELD OBSERVATIONS OF TURBULENCE AND SUSPENDED SEDIMENTS OVER AN INTERTIDAL REEF<br>Zhi-Cheng Huang, Graduate Institute of Hyological And Oceanic Sciences, National Central University, Taiwan  | EXPERIMENTAL AND NUMERICAL STUDY ON OBLIQUE WAVE-IN-DECK LOADS<br>Hongchao Wang, Technology Centre for Offshore and Marine, Singapore, Singapore | LARGE EDDY SIMULATIONS OF BREAKING WAVE IMPACT ON A VERTICAL WALL ATTACHED WITH PARAPET<br>Shaswat Saincher, Indian Institute of Technology Madras, India  | COASTAL MAREJADAS FORECAST SYSTEM, VALIDATION AND INSTITUTIONAL LINK IN CHILE.<br>Mauricio Molina, Universidad De Valparaiso, Chile                                       | MIGRATION AND BURIAL TENDENCIES OF VARIABLE DENSITY MUNITIONS: INITIAL RESULTS FROM A LARGE-SCALE STUDY<br>Manoj Kumar Gangadharan, University of Delaware, United States | CLIMATE CHANGE IMPACTS ON REEF TOP ISLANDS<br>Stuart Bettington, Royal HaskoningDHV, Australia  |

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| 1040 - 1100                      | APPLICATION OF VENTURI DIFFUSER DESIGN FOR HYPERSALINE WASTEWATER DISCHARGE INTO THE MARINE ENVIRONMENT<br><b>Rhian Wardley, Baird Australia Pty Ltd, Australia</b>                                 | NUMERICAL SIMULATION OF DRIFTWOOD TRANSPORT BY WAVES IN A LABORATORY BASIN<br><b>Enda Murphy, National Research Council Canada, Canada</b>       | EFFICIENTLY FORECASTING 2-DIMENSIONAL SPECTRA INSIDE SHELTERED PORTS USING SPECTRAL AND PHASE-RESOLVING WAVE MODELS<br><b>Jacob Suhr, SeaportOPX, Australia</b>                             | COASTAL SETBACK PRACTICES IN THE CARIBBEAN AND OTHER SIDS: A TOOL FOR ENHANCING RESILIENCE<br><b>Telica Mussington, Smith Warner Intl. /University of Manchester, Jamaica</b> | NEW STANDARDS FOR MITIGATING EDGING IMPACTS IN SENSITIVE HABITATS<br><b>Kasper Kaergaard, DHI, Denmark</b>   | QUANTIFYING THE BELGIAN COAST'S RESILIENCE AGAINST SEA LEVEL RISE (USING XBEACH & SWASH MODELLING)<br><b>Sieglien De Roo, Ghent University / Flanders Hyaulics Research, Belgium</b>   |
| 1100 - 1120                      | TURBULENCE MODELLING OF INCIPIENT WAVE BREAKING ON A VERTICAL CYLINDER ON A SLOPED BED<br><b>Yuzhu Pearl Li, National University of Singapore, Singapore</b>  | FLEXIBLE FLUID STRUCTURE INTERACTION OF A FLEXIBLE PLANT MODEL FOR NATURE-BASED SOLUTIONS<br><b>Ross Henteleff, University of Ottawa, Canada</b> | SPH AND ANALYTICAL MODELING OF AN URBAN FLOATING STRUCTURE FOR COASTAL EXPANSION<br><b>Shengzhe Wang, University of Colorado Denver, United States</b>                                      | AUCKLAND COUNCIL'S PROGRESS ON SUSTAINABLE SHORELINE ADAPTATION PLANS<br><b>Matt Rivers, Auckland Council, New Zealand</b>  | A 2500-YEAR SEA LEVEL RECORD FROM PHRATHONG ISLAND, THAILAND<br><b>Rahul Kumar, Asian School of the Environment, Nanyang Technological University Singapore, Singapore</b>   | IMPACT OF CLIMATE CHANGE-INDUCED SEA ICE RETREAT ON ARCTIC STORM SURGES<br><b>Joseph Kim, University of Ottawa, Canada</b>   |
| 1120 - 1140                      | THE NUMERICAL ANALYSIS OF MIXING DEPTH AND THE THICKNESS OF BBL CONSIDERING THE SUBMERGED AQUATIC VEGETATION AND WIND STRESS<br><b>Hiroki Matsumoto, Port And Airport Research Institute, Japan</b> | SCOUR AMPLIFICATION CAUSED BY STRUCTURE PROXIMITY IN EXTREME FLOWS<br><b>Philippe April-lequere, University of Ottawa, Canada</b>                | NOWCASTING INFRAGRAVITY WAVE HEIGHT WITHIN A HARBOUR USING AN ARTIFICIAL NEURAL NETWORK<br><b>Ben Williams, University of Western Australia, Australia</b>                                  | IDENTIFYING TRENDS IN RESPONSES TO HURRICANE AND CLIMATE CHANGE COMMUNICATION TOOLS<br><b>Wanyun Shao, University of Alabama, United States</b>                               | AUSSEABED: A NATIONAL PROGRAM OF COLLABORATION TO MAXIMISE AUSTRALIA'S SEABED MAPPING EFFORTS<br><b>Timothy Ingleton, New South Wales Department of Planning And Environment, Australia</b>                              | CLIMATE CHANGE RISK TO MARITIME BOUNDARIES: A TAILORED METHODOLOGY FOR THE BLUE PACIFIC<br><b>Cristina Izaguirre, The Pacific Community (SPC), Fiji</b>                                |
| 1140 - 1200                      | MULTI-OBJECTIVE OPTIMISATION AND COASTAL IMPACT ASSESSMENTS OF WAVE FARMS<br><b>Daniel Raj David, University of Western Australia, Australia</b>  | EXPERIMENTAL WAKE DYNAMICS OF PILES WITH ARTIFICIAL BIOFOULING IN WAVES<br><b>Clemens Krautwald, Tu Braunschweig, Germany</b>                    | MODELLING WAVE-STRUCTURE INTERACTION WITH A NEW COMPRESSIBLE TWO-PHASE FLOW SOLVER<br><b>Barbara Zanuttigh, University of Bologna, Italy</b>  | USING AN AGENT-BASED MODEL TO SIMULATE THE IMPACTS OF AN APPLIED DYNAMIC ADAPTIVE PATHWAYS PLAN<br><b>Andrew Allison, NIWA Taihoro Nukurangi, New Zealand</b>                 | ANALYSIS OF VERTICAL LAND MOTIONS ALONG THE CHILEAN COAST CONSIDERING SEA-LEVEL VARIABILITY, EARTHQUAKE, AND CRUSTAL DEFORMATION OF SUBDUCTION ZONES<br><b>Francisco Molteni Perez, Universidad de Valparaíso, Chile</b> | ADAPTING TO CLIMATE CHANGE: RISK-BASED SHORELINE MANAGEMENT PLANNING<br><b>Sian John, Royal HaskoningDHV, Australia</b>  |
| 1200 - 1220                      |   | APPLICATION OF SMOOTHED PARTICLE HYDYNAMICS ON A LOW LEVEL QUAY DECK<br><b>Wim Van Alboom, Seco, Belgium</b>                                     | MODELING COASTAL WATER TABLE FLUCTUATIONS USING PFLOTRAN<br><b>Margit Maple, University of California Los Angeles, United States</b>  | FIELD SURVEY AND MODELLING OF THE 30 OCTOBER 2020 SAMOS TSUNAMI IN THE GREEK ISLANDS<br><b>Costas Synolakis, University of Southern California, United States</b>             |  | A MIXED METHOD TRADITIONAL KNOWLEDGE STUDY OF COASTAL FACTOR CORRELATION TO DECLINING SEA ICE IN RESOLUTE BAY, NUNAVUT<br><b>Alexana Forsythe, University of Ottawa, Canada</b>        |
| 1220 - 1300                      | <b>Lunch</b>  |  |   |   |  |  |
| 1300 - 1800                      | <b>Technical Tours</b>  |  |   |   |  |  |
| 1800 - 1930                      | <b>CERC Open Meeting</b><br>C2.3, Level 2, International Convention Centre Sydney   |  |   |   |  |  |
| <b>Thursday 08 December 2022</b> |   |  |   |   |  |  |
| 0800 - 1800                      | <b>Registrations Open</b>   |  |   |   |  |  |
| 0830 - 1030                      | <b>Technical Sessions</b>   |  |   |   |  |  |
| Session                          | <b>Session 37<br/>Storm Surge Hazards Assessment and Modelling</b>  | <b>Session 38<br/>Tsunami, Ship and Dam Break Waves</b>  | <b>Session 39<br/>Coastal Evolution and Climate</b>   | <b>Session 40<br/>Wave Modelling 1</b>  | <b>Session 41<br/>Aeolian and Swash Sediment Transport</b>   | <b>Session 42<br/>Nature-Based Solutions 4</b>   |
| Room                             | <b>Room C2.1</b>  | <b>Room C2.2</b>   | <b>Room C2.3</b>  | <b>Room C2.4</b>  | <b>Room C2.5</b>   | <b>Pyrmont Theare</b>  |
| Chair                            | <b>Francois Flocard</b>   | <b>Hannah Power</b>  | <b>Bruce Jaffe</b>  | <b>Jeff Hansen</b>  | <b>Caroline Hallin</b>   | <b>Rodger Tomlinson</b>  |
| 0830 - 0850                      | SURVEY OF STORM SURGE DUE TO TYPHOON RAI IN DECEMBER 2021 IN THE PHILIPPINES<br><b>Tomoya Shibayama, Waseda University, Japan</b>   | VESSEL WAKE INDUCED DYNAMICS IN A SHALLOW-BAY ENVIRONMENT<br><b>Jens Figlus, Texas A&amp;M University, United States</b>                         | EFFECTS OF STOCHASTIC WAVE FORCING ON EQUILIBRIUM SHORELINE RESPONSE ACROSS THE 21ST CENTURY INCLUDING SEA-LEVEL RISE<br><b>Maurizio D'Anna, U Epoc 5805 Universite De Bordeaux, France</b> | GENERATION OF LINEAR WAVES WITH BOTTOM WAVE MAKERS IN A FLUME: AN EFFICIENT WAY TO PREVENT REFLECTED WAVES<br><b>Minh Thang Tran, Sejong University, South Korea</b>          | FIELD STUDY FOR WIND-BLOWN SAND ON THE SWASH ZONE<br><b>Akiyoshi Katano, Ecoh Corporation, Japan</b>   | BIOMIMICRY OF NATURAL REEF HYDYNAMICS IN AN ARTIFICIAL SPUR AND GROOVE REEF FORMATION<br>Emilee Wissmach, Florida Institute of Technology, United States                               |
| 0850 - 0910                      | PROBABILISTIC FORECASTING SYSTEM OF STORM SURGE USING A STOCHASTIC TYPHOON MODEL<br><b>Yoshimitsu Tajima, The University of Tokyo, Japan</b>  | CHARACTERIZING TRAILING WAVES FROM CARGO SHIP WAKE<br><b>Kevin Haas, GA Tech, United States</b>  | LITTORAL DRIFT GRADIENTS ON THE PORTUGUESE COASTAL SECTOR ESMORIZ-NAZARÉ: PAST AND FUTURE TRENDS<br><b>Ana Margarida Ferreira, University of Aveiro, Portugal</b>                           | NON-LINEAR DISPERSION EFFECTS IN NEARSHORE WAVES: PERSPECTIVES FOR DEPTH-INVERSION APPLICATIONS<br><b>Kevin Martins, U 5805 EPOC, University of Bordeaux, Australia</b>       | EFFECTS OF SHELLS ON AEOLIAN SEDIMENT TRANSPORT ON A NATURAL BEACH<br><b>Glenn Strypsteen, Ku Leuven - Campus Brugge, Belgium</b>  | EXPERIMENTAL EVALUATION OF THE PERFORMANCE OF A HYBRID ARTIFICIAL CORAL REEF WITH BRAIN AND STAGHORN CORALS<br><del>Seyedmohammaeza Ghiasian, University of Miami, United States</del> |

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|-------------|---|---|---|--|---|---|
| 0910 - 0930 | NATIONAL ASSESSMENT OF HURRICANE-INDUCED COASTAL EROSION HAZARDS IN PUERTO RICO<br><b>Legna Torres-García, U.S. Geological Survey, United States</b>                            | TRANSITION OF TSUNAMI-LIKE LONG WAVES FROM A BASIN INTO A CHANNEL WITH OUTFLOW JET<br><b>Samuel Salemink-Harry, Oregon State University, United States</b>                | ARE GLOBAL CHANGES IN WAVE AND STORM SURGE CONDITIONS CORRELATED WITH COASTAL EROSION/ACCRETION?<br><b>Mandana Ghanavati, University of Melbourne, Australia</b>  | SIMULATION OF STEEPNESS-LIMITED BREAKING WAVES IN A FULLY NONLINEAR POTENTIAL FLOW MODEL<br><b>Sunil Mohanlal, LHSV, ENPC, France</b>  | IMPLICATIONS OF SPATIAL GRAIN SIZE VARIABILITY FOR AEOLIAN TRANSPORT<br><b>Christa van Ijzendoorn, Delft University of Technology, Netherlands</b>                            | LARGE SCALE LABORATORY OBSERVATIONS OF WAVE FORCE REDUCTION ON COASTAL BUILDINGS BY AN IDEALIZED MANGROVE FOREST<br><b>Peo Lomonaco, Oregon State University, United States</b>                 |
| 0930 - 0950 | HURRICANE RISK INFORMATION DIFFUSION MODEL: THEORETICAL FORMULATION AND EVIDENCE<br><b>Elissa Yeates, USACE Coastal and Hydraulics Laboratory, United States</b>                | NUMERICAL MODELLING OF TSUNAMIS GENERATED BY GRANULAR LANDSLIDES IN OPENFOAM<br><b>Alessano Romano, Roma Tre University, Italy</b>  | PSEUDO GLOBAL WARMING EXPERIMENTS OF BEACH MORPHOLOGICAL CHANGE: CASE STUDY IN NIIGATA COAST CAUSED BY TYPHOON LUPIT (2021)<br><b>Kota Ohizumi, CTI Engineering Co., Ltd., Japan</b>                        | MODELLING OF SPILLING AND PLUNGING BREAKING WAVES IN SPECTRAL MODELS<br><b>Yana Saprykina, Shirshov Institute of Oceanology of Russian Academy of Sciences, Russian Federation</b> | SPATIO-TEMPORAL VARIATION OF SHOREWARD AEOLIAN SAND TRANSPORT MEASURED USING NEAR-CONTINUOUS LASER SCANNING<br><b>Sander Vos, Delft University of Technology, Netherlands</b> | CONSTRUCTED OYSTER REEFS AS SEDIMENT STABILISERS AND ECOLOGICAL ENGINEERS: A DUTCH CASE STUDY<br><b>Anneke Van Den Brink, DPE, Australia</b>  |
| 0950 - 1010 | THE EFFECT OF TROPICAL CYCLONES' TRANSLATION SPEEDS AND LANDFALL ANGLES ON MAXIMUM SURGE HEIGHTS ALONG IDEALIZED COASTS<br><b>Xiaojuan Qian, Korea University, South Korea</b>  | DEEP LEARNING TO PREDICT TSUNAMI HEIGHT AT THE SHORELINE USING OCEAN BOTTOM PRESSURE DATA<br><b>Willington Renteria, University of Southern California, United States</b> | SHORELINE VARIATION OF AN ISLAND IN RESPONSE TO CHANGE IN WAVE DIRECTION<br><b>Takaaki Uda, Public Works Research Center, Japan</b>   | MODELING INFRA-GRAVITY WAVES USING SCHISM-WWMIII BASED ON IMPROVED FORMULAS AND COUPLING APPROACH<br><b>Jinghua Wang, The Hong Kong Polytechnic University, Hong Kong</b>          | DEPTH-RESOLVED MODELLING OF SEDIMENT FLUXES UNDER BICHROMATIC WAVES IN THE SWASH ZONE<br><b>Joost Kranenburg, University of Twente, Netherlands</b>                           | ROCK ARMOUR: A BENTHIC HABITAT PROVIDING VALUABLE ECOSYSTEM SERVICES IN THE CARIBBEAN SEA<br><b>Philip Warner, Smith Warner International Ltd., United States</b>                               |
| 1010 - 1030 | SHORT TERM SPATIALLY DENSE PREDICTION OF STORM SURGE ALONG THE NEW ZEALAND COASTLINE<br><b>Karin Bryan, University of Waikato, New Zealand</b>                                  | BEHAVIOR OF VARIABLE DENSITY MUNITIONS UNDER DAM BREAK FORCING<br><b>Temitope Idowu, University of Delaware, United States</b>  | IMPACTS OF SLR-UPSCALED NOURISHMENT SCENARIOS ON DECADAL CROSS-SHORE DYNAMICS<br><b>Tosca Kettler, TU Delft, Netherlands</b>  |  | FIELD OBSERVATIONS OF SEDIMENT PARTICLE MOVEMENTS IN THE SWASH ZONE USING FLUORESCENT SAND<br><b>Takayuki Suzuki, Yokohama National University, Japan</b>                     | CAN LIVING SEAWALLS BE DESIGNED TO IMPROVE BIOSECURITY?<br><b>Katherine Dafforn, Macquarie University, Australia</b>  |
| 1030 - 1100 | Morning Tea   |   |   |  |   |   |
| 1100 - 1300 | Technical Sessions  |   |   |  |   |   |
| Session     | Session 43<br>Coastal Management 2  | Session 44<br>Structure and Sediment Interactions   | Session 45<br>Coastal Sediments and Transport 2   | Session 46<br>Coastal Evolution 1  | Session 47<br>Ship Mooring  | Session 48<br>Coastal Hazards   |
| Room        | Room C2.1   | Room C2.2   | Room C2.3   | Room C2.4  | Room C2.5   | Pyrmont Theare  |
| Chair       | Maria Maza  | Kasper Kaergaard  | Cheng-Jung Hsu  | Aline Pieterse   | Jesper Nielsen  | Karin Bryan   |
| 1100 - 1120 | COASTAL MANAGEMENT CASE STUDY - QUINNS BEACH, CITY OF WANNEROO, WESTERN AUSTRALIA<br><b>Rory Ellyard, City of Wanneroo, Australia</b>   | ESTIMATING SEDIMENT GENERATION FROM ROCK CONSTRUCTION WORKS<br><b>Christopher Adamantidis, Advisian Pty Ltd, Australia</b>  | REAL-TIME MONITORING OF HYDYNAMICS AND SUSPENDED SEDIMENT CONCENTRATIONS IN A COASTAL REEF<br><b>Ly TrungNguyen, Graduate Inst. of Hyological and Oceanic Sciences, National Central University, Taiwan</b> | THE EVOLUTION TREND OF A BEACH IN CONSEQUENCE OF THE BUILDING OF COASTAL STRUCTURES<br><b>Pasquale Filianoti, University Mediterranea of Reggio Calabria, Italy</b>                | PROPAGATION OF CARGO SHIP WAKE INTO SECONDARY CHANNELS<br><b>Alexana Muscalus, GA Tech, United States</b>   | INTERACTIVE VISUALIZATION FOR COASTAL HAZARDS<br><b>Patrick Lynett, University of Southern California, United States</b>  |
| 1120 - 1140 | THE ROBIN HOOD APPROACH TO COASTAL MANAGEMENT – SAND HARVESTING THROUGH THE EYES OF BEACH SCRAPOLOGISTS<br><b>Marc Daley, Department of Planning and Environment, Australia</b> | STABILITY OF BURIED SCOUR PROTECTION IN SHALLOW COASTAL WATERS<br><b>Nils B. Kerpen, Ludwig-Franzius-Institut, Uni Hannover, Germany</b>                                  | FACTORS CONTROLLING THE EQUILIBRIUM SEDIMENT COMPOSITION IN SAND-MUD TIDAL BASINS<br><b>Ana Colina Alonso, Delft University of Technology, Netherlands</b>  | COASTAL DUNES CHANGES ALONG THE WESTERN COAST OF EUROPE<br><b>Olivier Burvingt, Univ. Bordeaux, France</b>   | AI- BASED DECISION-MAKING TOOLS FOR PORT MANAGEMENT: SHIP-INFRASTRUCTURE OPERABILITY AND OVERTOPPING<br><b>Enrique Pena, University of A Coruña, Spain</b>                    | A MULTI-SCALE STORM COASTAL STORM HAZARDS EARLY WARNING SYSTEM FOR AUSTRALIA<br><b>Christopher Leaman, UNSW, Australia</b>  |
| 1140 - 1200 | COST BENEFIT ANALYSIS IN COASTAL MANAGEMENT – USEFUL OR FLAWED?<br><b>Ron Cox, Water Research Laboratory UNSW, Australia</b>  | BEACH BUILDINGS ON POLES AND THEIR IMPLICATIONS FOR DUNEWARD SEDIMENT TRANSPORT: A NUMERICAL STUDY<br><b>Paran Pourteimouri, University of Twente, Netherlands</b>        | EFFECT OF LARGE-SCALE FORCING ON THE LOCAL SEDIMENT TRANSPORT POTENTIAL AT THE SCHLESWIG-HOLSTEIN BALTIC SEA COAST<br><b>Pushpa Dissanayake, Kiel University, Germany</b>                                   | EFFECTS OF CONSTITUENT MATERIAL PROPERTIES ON EROSION OF FLAT BED AND RECESSION OF BLUFF<br><b>Ali Farhadzadeh, Stony Brook University, United States</b>                          | NEURAL NETWORKS FOR OPTIMIZATION OF AN EARLY WARNING SYSTEM FOR MOORED SHIPS IN HARBOURS<br><b>Liliana Pinheiro, LNEC, Portugal</b>   | INTERPRETABLE ARTIFICIAL INTELLIGENCE FOR RIP CURRENT DETECTION AND LOCALIZATION<br><b>Christo Rautenbach, NIWA, New Zealand</b>  |
| 1200 - 1220 | AFTER THE 1972 STOCKHOLM CONFERENCE: 50 YEARS OF COASTAL MANAGEMENT IN PORTUGAL<br><b>Carlos Coelho, University of Aveiro, Portugal</b>   | TURBULENT BORES–INDUCED SCOUR AND PORE PRESSURE VARIATIONS AROUND A VERTICAL STRUCTURE<br><b>Marieh Rajaie, University of Ottawa, Canada</b>                              | PROBABILISTIC PREDICTIONS OF EQUILIBRIUM RIPPLE GEOMETRY FOR TIME-DEPENDENT SEAFLOOR MODELING<br><b>Allison Penko, U.S. Naval Research Laboratory, United States</b>  | LONG TERM MORPHOLOGIC MODELLING OF DELTA DEVELOPMENT IN BRETON SOUND RESULTING FROM A PROPOSED DIVERSION STRUCTURE<br><b>Qimiao Lu, Baird, Australia</b>                           | MOORED SHIP MOTION FORECAST TOOL FOR THE PORT OF NGQURA<br><b>Christophe Troch, Council For Scientific And Industrial Research (CSIR), South Africa</b>                       | UTILISING GEOSCIENTIFIC INSIGHTS INTO PAST COASTAL HAZARD EVENTS FOR COASTAL ENGINEERING<br><b>Adam D. Switzer, Earth Observatory of Singapore, Nanyang Technological University, Singapore</b> |

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| 1220 - 1240 | A PATH TOWARDS HOLISTIC COASTAL ZONE MANAGEMENT IN TEXAS LEVERAGING SIGNIFICANT INVESTMENTS IN DATA COLLECTION, PLANNING, AND IMPLEMENTATION<br><b>Coraggio Maglio, DCCM, United States</b>           | SPATIO-TEMPORAL ANALYSIS OF SCOUR AROUND JACKET TYPE OFFSHORE FOUNDATIONS UNDER CLEAR WATER AND LIVE BED CONDITIONS<br><b>Ramish Satari, Leibniz University Hannover, Germany</b> | STORM AND TSUNAMI OVERWASH SEDIMENT TRANSPORT INFERRED FROM RECENT DEPOSITS<br><b>Bruce Jaffe, United States Geological Survey, United States</b>                                       | COASTAL 'OMNI-LINE': MULTI-SCALE DATA SYNTHESIS, TOP-DOWN AND BOTTOM-UP<br><b>Jak McCarroll, Department of Environment, Land, Water And Planning, Australia</b>                    | CHANNEL WAVE REFRACTION EFFECT ON MOORED LNG CARRIERS<br><b>Wim van der Molen, Baird Australia Pty Ltd, Australia</b>   | STUDY OF DETERMINING RISK LEVEL REGARDING SWIMMING CONDITION ON BATHING BEACH USING<br><b>AI Haruki Toguchi, Chuo University, Japan</b>  |
| 1240 - 1300 | UPDATE ON THE STABILITY FOUR ESTUARIES ON THE AUSTRALIAN SOUTH-EASTERN SEABOARD<br><b>Angus Gordon, Coastal Zone Management And Planning, Australia</b>   | 40 YEARS OF FLEXIBLE SCOUR APRONS: ATLANTIC AND PACIFIC COAST CASE HISTORIES<br><b>Christopher Brown, Seabee Developments, United Kingdom</b>                                     | NEARSHORE SCALAR TRANSPORT MODEL WITH VIRTUAL REALITY ENVIRONMENT<br><b>Sooncheol Hwang, Korea University, South Korea</b>  | EROSION HOTSPOTS AND BAR DYNAMICS ON THE DANISH WESTCOAST<br><b>Nikolai Sorensen, Danish Coastal Authority, Denmark</b>  | MONITORING MOORED BOAT MOTIONS INDUCED BY WAKE FROM PASSING VESSELS, A CASE STUDY: WILLIAMSTOWN MARITIME PRECINT<br><b>Daniel Machado, BMT, Australia</b>                             | PROBABILISTIC APPROACHES FOR ASSESSING EROSION HAZARD ALONG NEW SOUTH WALES MID NORTH COAST<br><b>Michael Thomson, JBPacific, Australia</b>  |
| 1300 - 1400 | <b>Lunch</b>  |   |   |  |   |  |
| 1400 - 1600 | <b>Technical Sessions</b>   |   |   |  |   |  |
| Session     | <b>Session 49<br/>Infragravity Waves</b>  | <b>Session 50<br/>Wind Farms and Floating Structures</b>  | <b>Session 51<br/>Inlets, Spits and Urban Coastal Flooding</b>  | <b>Session 52<br/>Modelling Coastal Evolution</b>  | <b>Session 53<br/>Coastal Management 3</b>  | <b>Session 54<br/>Tsunami 2</b>  |
| Room        | <b>Room C2.1</b>  | <b>Room C2.2</b>  | <b>Room C2.3</b>  | <b>Room C2.4</b>   | <b>Room C2.5</b>  | <b>Pymont Theare</b>   |
| Chair       | <b>Gary Blumberg</b>  | <b>Leopoldo Franco</b>  | <b>Ana Vila-Concejo</b>   | <b>Jak McCarroll</b>   | <b>Ron Cox</b>  | <b>Claudia Cecioni</b>   |
| 1400 - 1420 | CHARACTERISATION OF INFRAGRAVITY WAVES AND THEIR ASSOCIATED HYDRODYNAMICS PROCESSES IN MESO-MACRO TIDAL LAGOON<br><b>Paul Bayle, TUDelft / BRGM - Ifremer, Netherlands</b>                            | CHALLENGES IN DESIGNING A WIND FARM ON AN ERODING BEACH ALONG THE DUTCH COAST<br><b>Anne de Beer, Royal HaskoningDHV, Netherlands</b>   | INFLUENCE OF EBB-DELTA DYNAMICS ON EVOLUTION OF INLET-INTERRUPTED COASTS<br><b>Janaka Bamunawala, University of Moratuwa, Netherlands</b>   | APPLICATION OF EQUILIBRIUM-BASED SHORELINE EVOLUTION MODELING TO DIVERSE COASTAL ENVIRONMENTS<br><b>Camilo Jaramillo Cardona, Fundacion Instituto De Hiaulica Ambiental, Spain</b> | AN ADAPTIVE PATHWAY TO COASTAL RESILIENCE<br><b>Adam Hosking, Jacobs, United Kingdom</b>  | THE JANUARY 2022 TONGA-HUNGA HA'APAI TSUNAMI WAVES ON THE EAST COAST OF AUSTRALIA, AND COMPARISON TO PREVIOUS EVENTS<br><b>Sam Maddox, Manly Hydraulics Laboratory, Australia</b>                |
| 1420 - 1440 | FREE AND BOUND WAVES IN THE COASTAL ZONE: FIELD, LABORATORY AND NUMERICAL EXPERIMENTS<br><b>Sergey Kuznetsov, Shirshov Institute of Oceanology of Russian Academy of Sciences, Russian Federation</b> | AN EXPERIMENTAL STUDY ON A COMPLIANT FLOATING PLATFORM WITH A FRONT BARRIER UNDER WAVE ACTION<br><b>Cheng Bi, Nanyang Technological University, Singapore</b>                     | MONITORING OF THE COASTAL DYNAMICS ON THE SAND SPIT AT TORTUGUEROS BEACH, MEXICO<br><b>Mireille Escudero, Universidad Nacional Autónoma De México, Mexico</b>                           | NEW PROCESS BASED EQUATION FOR A STATIC EQUILIBRIUM BEACH PLANFORM<br><b>June Gainza, Bluecoast Consulting Engineers, Australia</b>  | DEVELOPING LARGE-SCALE AND FAST COMPOUND FLOOD MODELS FOR AUSTRALIAN COASTLINES<br><b>Tim Leijnse, Deltares   VU Amsterdam, Netherlands</b>   | NUMERICAL SIMULATION OF TSUNAMI IMPACT FROM THE 1/15/22 ERUPTION OF THE HUNGA TONGA - HUNGA HA'APAI VOLCANO<br><b>Stephan Grilli, University of Rhode Island, United States</b>                  |
| 1440 - 1500 | CONTRIBUTION OF INFRAGRAVITY WAVES TO STORM WATER LEVEL ALONG A LARGE INLET: IMPLICATIONS FOR FLOODING AND OVERTOPPING HAZARDS<br><b>Alexane Nicolae Lerma, Brgm, France</b>                          | HYDROSTATIC STABILITY EXPLORATION ON FLOATING STRUCTURES USING MACHINE LEARNING<br><b>Hamid ElDarwich, Princeton University, United States</b>                                    | EFFECTS OF WAVE SKEWNESS AND ASYMMETRY ON THE EVOLUTION OF FIRE ISLAND, NEW YORK<br><b>Muhammed Said Parlak, Istanbul Bilgi University, Turkey</b>                                      | MODELLING OF BEACH STATE VARIABILITY<br><b>Blessing Nwanosike, Swansea University, United Kingdom</b>  | CASE STUDY OF INTEGRATED COASTAL ZONE MANAGEMENT IN IVORY COAST: STABILIZATION OF MIGRATING TIDAL INLET BY SOFT PROTECTION MEASURES<br><b>Aurelie Le Dissez, Artelia, France</b>      | METEOROLOGICAL TSUNAMIS FROM ATMOSPHERIC EFFECTS AND VOLCANIC ERUPTIONS – A HAZARD FOR COASTAL REGIONS AND PORTS<br><b>Pattiaratchi Charitha, The University of Western Australia, Australia</b> |
| 1500 - 1520 | CROSS-SHORE TRANSFORMATION OF BOUND AND FREE INFRAGRAVITY WAVES OFF THE DUTCH COAST<br><b>Marion Tissier, Delft University of Technology, Netherlands</b>   | DESIGN OF A FLOATING PLATFORM FOR AN INNOVATIVE DUCTED WIND TURBINE<br><b>Luana Gurnari, University Mediterranea of Reggio Calabria, Italy</b>                                    | MIGRATION AND WELDING OF AN ESTUARINE BARRIER-SPIT IVEN BY DELTA EVOLUTION AND STORMS<br><b>Mike Kinsela, University of Newcastle, Australia</b>  | AN INTEGRATED MACHINE LEARNING - PROBABILISTIC APPROACH TO PREDICT BEACH VOLUME CHANGE<br><b>Aline Pieterse, IMDC, Belgium</b>   | MULTI-YEAR MONITORING TO DISTINGUISH ENVIRONMENTAL IMPACTS DUE TO WATERFRONT CONSTRUCTION FROM AMBIENT ENVIRONMENTAL CHANGE<br><b>Kevin MacIntosh, Baird &amp; Associates, Canada</b> | TSUNAMI FLOW PARAMETERS INFLUENCING PORT DAMAGE: A CASE-STUDY OF THE 2011 TOHOKU TSUNAMI<br><b>Constance Ting Chua, Nanyang Technological University, Singapore</b>                              |
| 1520 - 1540 | LONG WAVES FORCED BY SYMMETRIC AND ASYMMETRIC WAVE GROUPS<br><b>Tom Baldock, University of Queensland, Australia</b>  | EFFECT OF TSUNAMI INDUCED CURRENTS ON FLOATING PONTOONS WITH THE MOORING LINES<br><b>Bergüzar Ozbahceci, Izmir Institute of Technology, Turkey</b>                                | NUMERICAL MODELING OF SHINNECOCK INLET, NEW YORK, FOR COASTAL EROSION CONTROL SUPPORT AND INLET SEDIMENT MANAGEMENT<br><b>Lihwa Lin, Us Army Corps of Engineers, United States</b>      | CROSS-SHORE BEACH PROFILE SIMULATION IN THE SWASH ZONE OF NARRABEEN-COLLAROY BEACH<br><b>Mohammad Tabasi, Yokohama National University, Japan</b>                                  | COAST4US: APPLICATION OF THE COAST TOOL TO THE PORTUGUESE WEST COASTLINE<br><b>Ané Cardoso, R5e Consulting Engineers, Portugal</b>  | EFFECTIVENESS OF TSUNAMI MITIGATION STRUCTURES ON UNDERUTILIZED URBAN AREAS: A CASE STUDY ON REDUCING DAMAGE CAUSED BY TSUNAMI TO BUILDINGS<br><b>Moe Takino, Tokushima University, Japan</b>    |
| 1540 - 1600 | INFRAGRAVITY WAVES AT A TIDAL INLET<br><b>Ad Reniers, Delft University of Technology, Netherlands</b>   | HYDRODYNAMIC BEHAVIOR OF SUBMERGED FLOATING BRIDGE WITH SUSPENSION SUPPRORT AFTER CABLE FAILURE<br><b>Deokhee Won, Halla University, South Korea</b>                              | COMPOUND URBAN COASTAL FLOOD MODELLING: INTEGRATING TIDE, WAVES, PRECIPITATION AND HYDRAULIC INFRASTRUCTURE<br><b>Boxiang Tang, University of California Los Angeles, United States</b> | PREDICTION OF TOPOGRAPHIC CHANGES ON ENSHUNADA COAST CONSIDERING EFFECT OF BOTH WAVES AND WINDBLOWN SAND<br><b>Takuya Yokota, Coastal Engineering Laboratory Co., Ltd, Japan</b>   | THE IMPACT OF EXTREME WATER LEVELS ON TORONTO ISLAND PARK AND INCREASING RESILIENCE AGAINST FUTURE FLOOD EVENTS<br><b>Jennifer Crilly, Baird, Australia</b>                           | DEVELOPMENT OF SMARTPHONE APPLICATION TO SUPPORT TSUNAMI EVACUATION<br><b>Dawn Han, Waseda University, Japan</b>   |
| 1600 - 1630 | <b>Afternoon Tea</b>  |   |   |  |   |  |
| 1630 - 1810 | <b>Technical Sessions</b>   |   |   |  |   |  |



| Session                        | Session 55<br>Tsunami 3   | Session 56<br>Breakwater Design  | Session 57<br>Climate Resilience and Adaptation   | Session 58<br>Shoreline Modelling & Prediction  | Session 59<br>Coastal Management 4   | Session 60<br>Nature-Based Solutions 5  |
|--------------------------------|---|--|---|---|--|---|
| Room                           | Room C2.1   | Room C2.2  | Room C2.3   | Room C2.4   | Room C2.5  | Pyrmont Theare  |
| Chair                          | Tom Bruce   | Jessica Podoski  | Spicer Bak  | Kristen Splinter  | Ravi Jayaratne   | Ioan Nistor   |
| 1630 - 1650                    | INVESTIGATING DEBRIS TRANSPORT DURING EXTREME COASTAL EVENTS<br><b>Gizem Ezgi Cinar, University of Southern California, United States</b>   | MAXIMUM MOMENTUM FLUX FOR STABILITY ANALYSIS OF MODEL AND PROTOTYPE BREAKWATERS<br><b>Ina Jayewardene, Manly Hyaulics Laboratory, Australia</b>  | CLIMATE RESILIENT COASTAL SOLUTIONS IN THE CARIBBEAN CONTEXT<br><b>Amaury Camarena, CBCL, Canada</b>  | REDUCED-COMPLEXITY MODELING OF CROSS-SHORE AND LONGSHORE BEACH EVOLUTION<br><b>Marissa Yates, Cerema Risk, Water, Sea And Coasts, France</b>                          | PALM BEACH SHORELINE PROJECT: INNOVATIVE COASTAL MANAGEMENT SOLUTION<br><b>Shannon Hunt, City of Gold Coast, Australia</b>   | EFFECTIVENESS OF CORAL REEF RESTORATION IN WAVE ATTENUATION APPLICATIONS<br><b>Justin Geldard, The University of Western Australia, Australia</b>   |
| 1650 - 1710                    | PROBABILISTIC APPROACH FOR PREDICTING THE IFT OF BODIES BY TSUNAMIS<br><b>Keisuke Haga, Chuo University, Japan</b>  | MODELING MACRO ROUGHNESS WITH A POROUS MEDIA, EXAMPLE OF THE ARTHA BREAKWATER<br><b>Pierre-Antoine Poncet, Université De Pau Pays De L'adour, France</b>                               | MANAGING UNCERTAINTIES IN URBAN DEVELOPMENT AND CLIMATE CHANGE ADAPTATION: A CASE STUDY IN ADAPTATION USING DAPP IN SKIVE, DENMARK<br><b>Rick Kool, NIRAS, Denmark</b>                                    | TEST OF LSTM NETWORKS IN LONG-TERM BEACH MORPHOLOGICAL CHANGES<br><b>Masayuki Banno, Port and Airport Research Institute, Japan</b>                                   | MONITORING OF THE PALM BEACH ARTIFICIAL REEF<br><b>Paul Prenzler, Royal HaskoningDHV, Australia</b>  | MODELING CORAL REEF RESTORATION TO REDUCE COASTAL HAZARDS FROM SCALES OF CENTIMETERS TO KILOMETERS<br><b>Curt Storlazzi, U.S. Geological Survey, United States</b>  |
| 1710 - 1730                    | MODELLING OF DEBRIS MOTION IVEN BY TSUNAMI WAVE BREAKING<br><b>Chiaki Tsurudome, Central Research Institute of Electric Power Industry, Japan</b>   | DETACHED BREAKWATERS PROTECT LARGE MARINE INFRASTRUCTURE FROM SEVERE STORMS<br><b>Carl Wehlitz, CSIR, South Africa</b>   | THE IMPLICATIONS OF TRANSITIONAL CLIMATE REGIONS ON COASTAL RISK I<br><b>txaso Oderiz Martinez, Universidad Nacional Autonoma de Mexico, Mexico</b>   | A DEEP LEARNING MODEL TO PREDICT SHORELINE CHANGE<br><b>Ernesto Eduardo Gomez de la Pena, University of Auckland, New Zealand</b>                                     | INVESTIGATING EDGE PLACEMENT OPTIMISATION TO BENEFIT SURF AMENITY<br><b>Nick Naderi, Queensland Government, Australia</b>  | ENGINEERED FRINGING REEFS: ENGINEERING WITH NATURE SOLUTIONS FOR COASTAL EROSION CONTROL<br><b>Matthew Allen, MMA Offshore, Australia</b>   |
| 1730 - 1750                    | FROM OFFSHORE TO ONSHORE PROBABILISTIC TSUNAMI HAZARD ASSESSMENT WITH QUANTIFIED UNCERTAINTY: EFFICIENT MONTE CARLO TECHNIQUES<br><b>Gareth Davies, Geoscience Australia, Australia</b>                                 | THE VAN DER MEER FORMULA FOR ROCK SLOPE STABILITY AT SHALLOW WATER<br><b>Jentsje Van Der Meer, Van Der Meer Consulting, Netherlands</b>  | ADAPTATION ASSESMENT OF PORT INFRASTRUCTURES FOR CLIMATE CHANGE FOR COMPOUND IMPACTS<br><b>Javier Lara, IHCantabria - Universidad de Cantabria, Spain</b>   | MODELLING SHORELINE EVOLUTION AT COLLAROY-NARRABEEN, DUE TO COMBINED CROSS-SHORE AND LONGSHORE SEDIMENT TRANSPORT PROCESSES<br><b>Emily Hunt, UOP, United Kingdom</b> | OVERVIEW OF THE COASTAL TEXAS MEGA PROJECT<br><b>Patrick Kerr, US Army Corps of Engineers, United States</b>   | OYSTER REEF AND MUSSEL BED SURROGATES SUBJECTED TO WAVES<br><b>Jan Christian Hitzegrad, Leichtweiß-institute For Hyaulic Engineering And Water Resources, Technische Universität Braunschweig, Braunschweig, G, Germany</b> |
| 1750 - 1810                    | NON-STATIONARY PROBABILISTIC TSUNAMI HAZARD ASSESSMENTS INCORPORATING TIDES AND SEA LEVEL RISE<br><b>Philip Liu, NUS, Singapore</b>   | INCORPORATING CLIMATE CHANGE RESILIENCE INTO A BREAKWATER REPAIR: A CASE STUDY AT HILO, HAWAII<br><b>Jessica Podoski, US Army Corps of Engineers, Honolulu District, United States</b> | COUPLING REMOTE SENSING IMAGERY AND NUMERICAL MODELS TO QUANTIFY THE RESILIENCE OF COASTAL MARSHES TO CLIMATE CHANGE<br><b>Sergio Fagherazzi, Boston University, United States</b>                        | PREDICTING SHORELINE EVOLUTION IN A CHANGING WAVE CLIMATE<br><b>Raimundo Ibaceta, Water Research Laboratory - UNSW Sydney, Australia</b>                              | DIGITAL TWINNING AS A DECISION SUPPORT TOOL FOR RESILIENCE PLANNING OF COASTAL INTERMODAL TRANSPORTATION NETWORKS<br><b>Anibal Tafur, Rice University, United States</b> | SHELL HASH: A NATURE-BASED SOLUTION FOR BEACHFRONT COASTAL RESILIENCE?<br><b>Bill Dally, University of North Florida, United States</b>   |
| 1830 - 2030                    | <b>Young Professionals Networking Function</b><br>Hilton Sydney Hotel, Level 4, 488 George St Sydney  |  |   |   |  |   |
| <b>Friday 09 December 2022</b> |   |  |   |   |  |   |
| 0800 - 1700                    | <b>Registrations Open</b>   |  |   |   |  |   |
| 0830 - 0920                    | <b>Plenary Session</b><br><b>Pyrmont Theare</b>   |  |   |   |  |   |
| 0830 - 0920                    | <b>Introduction</b><br><b>Keynote Address: A Career with Coastal Processes and 18 ICCEs</b><br><b>Peter Nielsen</b><br><b>Professor</b><br><b>School of Civil Engineering, The University of Queensland, Queensland</b> |  |   |   |  |   |
| 0920 - 1000                    | <b>Morning Tea</b>  |  |   |   |  |   |
| 1000 - 1200                    | <b>Technical Sessions</b>   |  |   |   |  |   |
| Session                        | Session 61<br>Climate Change  | Session 62<br>Breakwater Design and Innovation   | Session 63<br>Storm Surge 1   | Session 64<br>Wave Transformation, Bores and Design Criteria  | Session 65<br>Coastal Evolution 2  | Session 66<br>Sand Bypassing and Nourishment  |
| Room                           | Room C2.1   | Room C2.2  | Room C2.3   | Room C2.4   | Room C2.5  | Pyrmont Theare  |
| Chair                          | Patrick Lynett  | Chris Brown  | Dave Callaghan  | Kevin Haas  | Evan Watterson   | Jennifer Irish  |
| 1000 - 1020                    | DOWNSCALING CLIMATE PROJECTIONS TOWARDS COASTAL HYODYNAMICS MODELS<br><b>Luis Germano Biolchi, Arpa-SIMC, Italy</b>   | INNOVATIVE SEAWALL DESIGN DEVELOPMENT IN NSW, AUSTRALIA: 4 RECENT CASE STUDIES<br><b>Natalie Patterson, Royal HaskoningDHV, Australia</b>  | APPLICATION OF THE MODIFIED LINEAR SUPERPOSITION METHOD FOR TIDE AND STORM SURGE INTERACTION — TROPICAL AND EXTRA-TROPICAL CYCLONES<br><b>Christopher Bender, Taylor Engineering, Inc., United States</b> | INVESTIGATIONS OF BORE-BORE CAPTURE ON A MACROTIDAL BEACH<br><b>Ms Rosanne Hart, The University of Newcastle, Australia</b>   | REPEATABILITY OF MORPHOLOGICAL CHANGE ON A SANDY BEACH ACROSS MULTIPLE TIMESCALES<br><b>Chris Blenkinsopp, University of Bath, United Kingdom</b>                        | FEASIBILITY STUDY OF SAND BYPASS AT AVEIRO AND FIGUEIRA DA FOZ INLETS<br><b>Celso Pinto, Portuguese Environment Agency (APA), Portugal</b>  |

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| 1020 - 1040 | THE WAVE CLIMATE OF SOUTH-EAST AUSTRALIA AND FUTURE WAVE PROJECTION BY THE END OF 21ST CENTURY<br><b>Jin Liu, University of Melbourne, Australia</b>  | THE DESIGN AND CONSTRUCTION OF BREAKWATER ON BAMBOO PILE FOUNDATION AT PATIMBAN PORT DEVELOPMENT PROJECT<br><b>Phuong Dong Le, Oriental Consultants Global, Indonesia</b>          | ANALYSIS OF STORM SURGE CHARACTERISTICS BASED ON TYPHOON PROPERTIES<br><b>Jung-A Yang, Korea University, South Korea</b>   | CHARACTERISTICS OF BORES GENERATED BY DIFFERENT MECHANISMS IN THE LABORATORY<br><b>Ignacio Barranco, Hr Wallingford, United Kingdom</b>   | STUDY OF CROSS-SHORE PROFILES AT SOUTH COASTS OF THE CASPIAN SEA UNDER RAPID CHANGES IN WATER LEVEL<br><b>Ioan Nistor, University of Ottawa, Canada</b>           | TWEED SAND BYPASSING TRANSITION PROJECT<br><b>Matthew Harry, Transport For NSW, Australia</b>  |
| 1040 - 1100 | EVALUATION OF BIAS CORRECTION METHODS FOR DETERMINING FUTURE DESIGN WAVE HEIGHT BASED ON MEGA-ENSEMBLE CLIMATE PROJECTION<br><b>Kunihiro Watanabe, National Institute For Land And Infrastructure Management, Japan</b> | PHYSICAL MODELLING OF ROCK BAGS FOR COASTAL PROTECTION APPLICATION<br><b>Dan Messiter, Royal HaskoningDHV, Australia</b>   | STORM TIDE IN A DATA RICH COASTAL EMBAYMENT FINDING THE MISSING SURGE<br><b>Mitchell Smith, Tuflow, Australia</b>  | SCALABLE REAL-TIME DATA ASSIMILATION WITH VARIOUS DATA TYPES FOR ACCURATE SPATIOTEMPORAL NEARSHORE BATHYMETRY ESTIMATION<br><b>Matthew Farthing, U.S. Army Corps of Engineer Research and Development Center, United States</b> | A PROCESS-BASED NUMERICAL MODEL OF SHORE FACE PROFILE EVOLUTION<br><b>Dean Patterson, University of Queensland, Australia</b>                                     | ARTIFICIAL SAND BYPASS SYSTEMS: FIXED, MOBILE, AND MIXED SYSTEMS.<br><b>Ricardo Carvalho, OCEANING-Engenheiros Consultores OEC, Lda., Portugal</b>         |
| 1100 - 1120 | GLOBAL OCEAN WAVES AND STORM SURGE CHANGES UNDER A WARMING CLIMATE<br><b>Tomoya Shimura, Kyoto University, Japan</b>  | PHYSICAL EVALUATION OF THE HYDYNAMIC STABILITY OF AN ECO-ENGINEERED ARMOURING UNIT<br><b>Jorge Gutierrez Martinez, Econcrete, Spain</b>  | ASSESSMENT OF UNCERTAINTY IN ESTIMATING FUTURE EXTREME STORM SURGE EVENTS IN OSAKA BAY USING LARGE ENSEMBLE TYPHOON DATA<br><b>Sota Nakajo, Osaka Metropolitan University, Japan</b>   | WAVE TRANSFORMATION ON A ROCKY SHORE: FROM FIELD WORK ON RE ISLAND TO 3D MODELING<br><b>Heloise Michaud, Shom, France</b>   | TOPOGRAPHIC RESPONSE TO HIGH WAVES AND SUBSEQUENT BEACH RECOVERY ON CHIGASAKI COAST<br><b>Takahisa Tamura, Kanagawa Prefecture, Japan, Japan</b>                  | WA'S FIRST LARGE SCALE BENEFICIAL USE BEACH NOURISHMENT PROJECT: LESSONS LEARNED<br><b>Demont Hansen, Department of Transport Maritime, Australia</b>      |
| 1120 - 1140 | FUTURE PREDICTION OF WIND VELOCITY AND SIGNIFICANT WAVE HEIGHT IN THE COMPLETELY ICE-FREE ARCTIC OCEAN UNDER RCP8.5 SCENARIO<br><b>Yudai Aoki, Niigata University, Japan</b>  | GUIDELINES FOR INSTALLING MULTI-USE AND ECO-FEATURES DURING BREAKWATER UPGRADES<br><b>Patrick Dwyer, DPI Fisheries, Australia</b>  | SUITABLE BOUNDARY LOCATION IDENTIFICATION FOR RAINFALL-RUNOFF AND SURGE MODEL COUPLING TO EVALUATE COMPOUND FLOOD HAZARDS IN COASTAL REGIONS<br><b>Mohammad Islam, Us Army Corps of Engineer-Galveston District, United States</b> | A METHOD TO DETERMINE WAVE DESIGN CRITERIA WITH HIGHER ACCURACY<br><b>Julia Soares, Water Technology, Australia</b>   | INFLUENCE ON EVENT-SPECIFIC CALIBRATION DATA IN MODELLING SUBAERIAL STORM EROSION UNDER COMPLEX BATHYMETRY<br><b>Hyeok Jin, Geosystem Research, South Korea</b>   | USING SHALLOW NEARSHORE BERM NOURISHMENTS TO ENHANCE BEACH WIDTH<br><b>Matthieu De Schipper, Delft University of Technology, Netherlands</b>               |
| 1140 - 1200 | GLOBAL WAVE CLIMATE TRENDS: WHAT DO THE SOUTHERN HEMISPHERE WAVE BUOYS TELL US?<br><b>Francois Flocard, UNSW WRL, Australia</b>   | IT DOES NOT HAVE TO BE SO HARD! APPROACHES TO FORESHORE MANAGEMENT USING ADAPTIVE NATURE-BASED SOLUTIONS AND LIVING FORESHORES<br><b>Nick Lewis, Royal HaskoningDHV, Australia</b> | STUDY OF STORM TIDE MODELING IN THE PEARL RIVER ESTUARY<br><b>Edward Shen, Guangzhou Maritime University, China</b>  |   | VERIFYING THE EROSION CHARACTERISTICS OF BEACH USING NUMERICAL SIMULATION AND LONG-TERM SURVEY DATA<br><b>Hyun Dong Kim, University of Florida, United States</b> | LIFE-CYCLE ANALYSES OF SUBAERIAL BEACH NOURISHMENTS WITH CONCURRENT NEARSHORE PLACEMENT OF EDGED SEDIMENT<br><b>Doug Krafft, USACE ERDC, United States</b> |
| 1200 - 1300 | <b>Lunch</b><br>(12:15 - 12:50 Pyrmont Theatre: Journals Q&A)   |  |  |   |   |  |
| 1300 - 1500 | <b>Technical Sessions</b>   |  |  |   |   |  |
| Session     | <b>Session 67</b><br><b>Storm Surge 2</b>   | <b>Session 68</b><br><b>Breakwater and Caisson Structures</b>  | <b>Session 69</b><br><b>Coastal Evolution 3</b>  | <b>Session 70</b><br><b>Wave Mechanics and Transformation</b>   | <b>Session 71</b><br><b>Wave Overtopping 3</b>  | <b>Session 72</b><br><b>Wave Attenuation by Vegetation</b>   |
| Room        | <b>Room C2.1</b>  | <b>Room C2.2</b>   | <b>Room C2.3</b>   | <b>Room C2.4</b>  | <b>Room C2.5</b>  | <b>Pyrmont Theare</b>  |
| Chair       | <b>Keisuke Nakayama</b>   | <b>Gildas Colleter</b>   | <b>Takaaki Uda</b>   | <b>Patrick Lynett</b>   | <b>Ian Coghlan</b>  | <b>Shari Gallop</b>  |
| 1300 - 1320 | EXTREME STORM SURGES DUE TO GLOBAL WARMING IN EAST ASIA BASED ON A MAXIMUM POTENTIAL STORM SURGE MODEL<br><b>Nobuhito Mori, Kyoto University, Japan</b>   | PEAK DIFFERENTIAL TIDAL PRESSURES FOR ROCK WALL RECLAMATION AREAS<br><b>Damian Dryden, Port of Townsville Ltd, Australia</b>   | INVESTIGATION INTO THE MECHANISMS OF CREST GROWTH ON GRAVEL BERMS<br><b>Oliver Foss, University of Bath, United Kingdom</b>  | DIRECTIONAL SPECTRA OF INFRAGRAVITY WAVES DURING STORMY CONDITIONS<br><b>Yoshinao Matsuba, The University of Tokyo, Japan</b>   | BEACH GROUNDWATER IMPACTS ON WAVE OVERTOPPING FLOODING<br><b>Marie-Pierre Delisle, UCLA, United States</b>  | ARE REDUCED-SCALE EXPERIMENTS OF WAVE DAMPING BY VEGETATION SUITABLE FOR ENGINEERING WITH NATURE?<br><b>Cox Daniel, Oregon State University, Australia</b> |
| 1320 - 1340 | LONG-TERM PROJECTION OF EXTREME STORM SURGE IN JAPAN USING MAXIMUM POTENTIAL STORM SURGE HEIGHT MODEL BASED ON HIGHRESMIP EXPERIMENT<br><b>Shun Ito, Kyoto University, Japan</b>  | STABILITY OF RUBBLE MOUND STRUCTURES UNDER OBLIQUE WAVE ATTACK<br><b>Amir Etemad Shahidi, Griffith University, Australia</b>   | NUMERICAL SIMULATION OF GRAVEL NOURISHMENT TO THE SEISHO COASTLINE IN JAPAN<br><b>Yuya Funahashi, Waseda University, Japan</b>   | RELATING WAVE GEOMETRY AND SURFACE DYNAMICS TO SUBSURFACE VELOCITIES<br><b>Tyler McCormack, Northeastern University, United States</b>  | EVALUATION OF OVERTOPPING MODEL PERFORMANCE USING NOVEL EXPERIMENTAL DATA FROM INDUSTRIAL DESIGN PROJECTS<br><b>Steven Downie, Arup, United Kingdom</b>           | CLASSIC APPROACH ON WAVE DISSIPATION BY SEAGRASS MEADOWS MAY OVERPREDICT COASTAL PROTECTION<br><b>Nery Contti Neto, UWA/Nortek, Australia</b>              |
| 1340 - 1400 | FORECAST VERIFICATION OF AN ENSEMBLE TROPICAL CYCLONE STORM SURGE SYSTEM<br><b>Huy Tran, The Bureau of Meteorology, Australia</b>   | APIA PORT BREAKWATER RECONSTRUCTION<br><b>Kane Satterthwaite, Beca Ltd, New Zealand</b>  | MORPHOLOGICAL RESPONSE OF THE NEARSHORE SEABED DUE TO OFFSHORE PRECONDITIONING FEATURES<br><b>Shaw Mead, eCoast Marine Consulting and Research, New Zealand</b>  | DAMPING OF FINITE AMPLITUDE SOLITARY WAVES IN A FLUME<br><b>Yufei Wang, National University of Singapore, Singapore</b>   | TYPHOON JEBI-INDUCED FLOOD MODELING DUE TO WAVE OVERTOPPING/RUNUP AND REVERSE FLOW AT KANSAI AIRPORT<br><b>Junbeom Jo, Kumamoto University, Japan</b>             | WAVE ATTENUATION OF SALTMARSH VEGETATION UNDER STORM CONDITIONS<br><b>Ganga Caldera, Institut National De La Recherche Scientifique, Canada</b>            |

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| 1400 - 1420 | CHARACTERISTICS ON CYCLONE AND STORM SURGE IN BEIRA CITY, MOZAMBIQUE<br><b>Daiki Tsujio, Pacific Consultants Co., Ltd., Japan</b>   | THE INFLUENCE OF A CROWN WALL ON WAVE OVERTOPPING OVER BREAKWATERS<br><b>Mads Roge Elup, Aalborg University, Denmark</b>   | APPLICATION OF A NUMERICAL MODEL AND BATHYMETRIC INVERSION ALGORITHMS TO ENHANCE UNDERSTANDING OF NEARSHORE CHANGE<br><b>Elora Oades, Queen's University, Canada</b>                                  | COMPARISON OF FLOW DYNAMICS AND AIR ENTRAINMENT UNDER LABORATORY PLUNGING AND SPILLING BREAKING WAVES<br><b>Byoungjoon Na, Korea Institute of Ocean Science And Technology, South Korea</b> | ASSESSMENT OF WAVE OVERTOPPING ON REEF-FRONTED SHORES<br><b>Alejano Moar, UQ, Australia</b>  | MANGROVE AND ITS IMPACTS ON WATER WAVES: A MODEL-SCALE LABORATORY STUDY USING 3D REPLICAS OF TYPICAL RHIZOPHORA<br><b>Che-Wei Chang, Kyoto University, Japan</b>                           |
| 1420 - 1440 | ANALYTICAL STUDY ON EFFECTS OF TIDE ON STORM SURGE DEVIATIONS<br><b>Yoshihiko Ide, Kyushu University, Japan</b>   | PROGRESSION OF MEAN DAMAGE ON A MOUND BREAKWATER IN ITS SERVICE LIFE<br><b>Miguel Santamaria, University of Granada, Spain</b>   | FIELD OBSERVATIONS AND MODELING OF BEACH CUSP EVOLUTION IN THE PRESENCE OF AN ARTIFICIAL VEGETATION PATCH<br><b>Maqsood Mansur, Northeastern University, United States</b>                            | ORBITAL VELOCITIES DUE TO BICHROMATIC-BIDIRECTIONAL WAVES<br><b>Claudio Neves, Federal University of Rio De Janeiro, Brazil</b>   | PHYSICAL MODELLING OF SOLITARY WAVE OVERTOPPING IN THE PRESENCE OF A COASTAL DUNE<br><b>Dhavalkumar Patel, The University of Queensland, Australia</b> | INVESTIGATION OF SPECTRAL ENERGY DISTRIBUTION IN WAVE GROUPS DUE TO PRESENCE OF VEGETATION<br><b>N Hari Ram, Indian Institute of Technology Madras, India</b>                              |
| 1440 - 1500 | WAVES AND STORM SURGES OF TROPICAL CYCLONES OVER THE ARABIAN SEA: FUTURE PROJECTIONS AND UNCERTAINTY ANALYSIS<br><b>Zahra Ranji, Kntoosi University of Technology, Iran</b> | DESIGN AND VERIFICATION OF A FRICTION COEFFICIENT OF CAISSON FOUNDATION<br><b>James Wong, Maritime and Port Authority of Singapore</b><br><b>Yadong Zhang, Surbana Jurong Consultants Pte Ltd, Singapore</b> | TOPOGRAPHIC OBSERVATION OF THE TIDAL FLAT AT THE MOUTH OF THE SHIRAKAWA RIVER DURING THE PASSAGE OF TYPHOON NO.9 AND NO.10 USING OPTICAL FIBERS<br><b>Takashi Yamano, Toyo Construction Co, Japan</b> | WAVE TRANSFORMATION OVER PALM BEACH REEF<br><b>Ralph Daniels, Queensland Government Hydraulics Laboratory, Australia</b>  | ADVANCES IN COASTAL FLOODING AND OVERTOPPING INVESTIGATIONS USING A 3D PHASE-RESOLVING WAVE MODEL<br><b>Stephan Kistner, PRDW, South Africa</b>        |  |
| 1500 - 1530 | <b>Afternoon Tea</b>  |  |   |   |  |  |
| 1530 - 1730 | <b>Technical Sessions</b>   |  |   |   |  |  |
| Session     | <b>Session 73<br/>Estuary Morphodynamics</b>  | <b>Session 74<br/>Seawalls, Levees and Revetments</b>  | <b>Session 75<br/>Extreme Waves</b>   | <b>Session 76<br/>Morphological Change -<br/>Observations and Modelling</b>   | <b>Session 77<br/>Wave Modelling 2</b>   | <b>Session 78<br/>Vegetation and Coastal Protection</b>  |
| Room        | <b>Room C2.1</b>  | <b>Room C2.2</b>   | <b>Room C2.3</b>  | <b>Room C2.4</b>  | <b>Room C2.5</b>   | <b>Pyrmont Theare</b>  |
| Chair       | <b>Giorgio Bellotti</b>   | <b>Ed Couriel</b>  | <b>Nobuhito Mori</b>  | <b>Mireille Escudero</b>  | <b>Giovanni Besio</b>  | <b>Daniel Cox</b>  |
| 1530 - 1550 | MORPHODYNAMICS AT THE MOUTH OF A BAR-BUILT ESTUARY: CARMEL RIVER, CA, USA<br><b>Mara Orescanin, Naval Postgraduate School, United States</b>                                | EXPERIMENTAL INVESTIGATION OF DENSITY EFFECT ON TSUNAMI BORE FORCES ON VERTICAL WALLS<br><b>Taro Arikawa, Chuo University, Japan</b>   | SIMULATION OF CONTAINER DRIFT UNDER EXTREME HYDYNAMIC CONDITIONS<br><b>Ryota Nakamura, Niigata University, Japan</b>  | MORPHOLOGICAL CHANGES TO THE PORTSEA (VICTORIA) COASTLINE FOLLOWING SHIPPING CHANNEL DEEPENING<br><b>Andrew McCowan, Water Technology Pty Ltd, Australia</b>                                | IMPROVING ANALYTICAL WAVE DAMPING MODELS FOR WOODY VEGETATION<br><b>Su Kallou, TU Delft, Netherlands</b>   | NUMERICAL SIMULATION OF WAVE-INDUCED VEGETATION DYNAMICS USING A PARTITIONED COUPLING BETWEEN THE SPH METHOD AND AN FEA STRUCTURAL SOLVER<br><b>Joe El Rahi, Ghent University, Belgium</b> |
| 1550 - 1610 | ESTUARINE-WIDE SEDIMENT DYNAMICS UNDER HUMAN INTERVENTIONS AND CLIMATE CHANGE EFFECTS; AN IDEALISED MODEL STUDY<br><b>Rutger Siemes, University of Twente, Netherlands</b>  | MONITORING OF A DYNAMIC REVETMENT DURING A SPRING TIDAL CYCLE IN NORTH COVE, WASHINGTON STATE, USA<br><b>George Kaminsky, Washington State Department of Ecology, United States</b>                          | FUTURE CHANGES IN EXTREME WAVES AND THEIR SEASONALITY IN THE MEDITERRANEAN SEA<br><b>Anea Lira Loarca, University of Genoa, Italy</b>   | OBSERVATIONS AND MODELING OF EROSION AND RECOVERY OF A COUPLED BEACH-DUNE SYSTEM<br><b>Joseph Long, University of North Carolina Wilmington, United States</b>                              | SHYTCWAVES: A STOP-MOTION HYBRID TC-INDUCED WAVES METAMODEL<br><b>Sara O. Van Vloten, University of Cantabria, Spain</b>                               | NEW INSIGHTS ON USING SCALED MARSH PLANT SURROGATES FOR WAVE ATTENUATION<br><b>Acacia Markov, University of Ottawa, Canada</b>   |
| 1610 - 1630 | NUMERICAL MODELING OF BAR-BUILT ESTUARIES AND IMPLICATIONS FOR THE MANAGEMENT OF INTERMITTENT INLETS<br><b>Liliana Velasquez, US Naval Academy, United States</b>           | QUANTIFYING RISKS FOR COASTAL LEVEE DESIGNS ALONG THE U.S. GULF COAST<br><b>Alexander Nelson, U.S. Army Corps of Engineers, United States</b>  | EXTREME WAVE CLIMATE OF THE NEW SOUTH WALES COAST<br><b>Sean Garber, Baird, Australia</b>   | APPLICATION OF CROSS-SHORE MORPHOLOGICAL MODELS FOR PERCHED BEACHES<br><b>Merel Kroeders, DEME Group, Belgium</b>   | PYCNOCLINE THICKNESS EFFECT ON INTERNAL WAVE BREAKING OVER A UNIFORM SLOPE<br><b>Keisuke Nakayama, Kobe University, Japan</b>                          | DIRECTIONALITY OF THREE-POINT BENDING TESTS WITH SALT MARSH SPECIES SPARTINA ANGLICA IN DORMANCY<br><b>Kara Keimer, Technische Universität Braunschweig, Germany</b>                       |
| 1630 - 1650 | STORM MORPHODYNAMICS AND DECADAL EVOLUTION OF BEACHES IN MODIFIED ESTUARIES AND BAYS<br><b>Ana Vila-Concejo, The University of Sydney, Australia</b>                        | DESIGN SCOUR LEVELS FOR DUNE REVETMENTS AND SEAWALLS<br><b>Alexander Nielsen, Advisian Pty Ltd, Australia</b>  | ON THE PROBABILITY OF UNIDIRECTIONAL NONLINEAR EXTREME WAVES IN THE PRESENCE OF WAVE REFLECTION<br><b>Yuchen He, The University of Sydney, Australia</b>  | DECADAL EVOLUTION OF CORAL ISLANDS IN A CHANGING OCEAN AND CLIMATE<br><b>Thomas Fellowes, The University of Sydney, Australia</b>   | APPLICABLE RANGE OF PERIODICAL WAVE THEORIES UPDATING LE MEHAUTE'S CHART<br><b>Kuifeng Zhao, Surbana Jurong Consultants Pte Ltd, Singapore</b>         | WAVE TRANSMISSION AND DISSIPATION BY HYBRID (VEGETATED WITH MANGROVE) BREAKWATERS<br><b>José Partida-ramírez, Universidad Nacional Autónoma De México, Mexico</b>                          |
| 1650 - 1710 | MORPHODYNAMICS OF TWO RIVERINE ESTUARIES IN NSW<br><b>Madelaine Broadfoot, University of Newcastle, Australia</b>   | ASSESSMENT OF THE FAILURE PROBABILITY OF UPGRADED RUBBLE-MOUND BREAKWATERS<br><b>Enrico Foti, University of Catania, Italy</b>   | EXTREME WAVES IN SHALLOW WATER AND EDGED CHANNELS FOR DIRECTIONAL SEAS<br><b>David Taylor, Baird, Australia</b>   | THE EFFICACY OF ANCHORED LARGE WOODY DEBRIS ON BEACH MORPHOLOGY: A PHYSICAL MODEL STUDY<br><b>Jessica Wilson, DHI Group, Canada</b>   | MULTI-LINEAR-ELEMENT DEPTH-INTEGRATED MODELS FOR FLOWS WITH A FREE SURFACE<br><b>Zhengtong Yang, Tcoms, Singapore</b>                                  | GRASS SOD PULLING TESTS TO DETERMINE RESISTANCE AGAINST EROSION BY WAVE OVERTOPPING<br><b>Gosse Jan Steendam, Infram Hyen, Netherlands</b>   |

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| 1710 - 1730 | ADVANCING SEDIMENT SOLUTIONS IN THE SEVEN MILE ISLAND INNOVATION LAB<br>Monica Chasten, US Army Corps of Engineers, United States | EFFECT OF GRAVEL PARTICLE SIZE ON THE RESHAPING OF DYNAMIC REVETMENTS<br>Dario Sirianni, University of Ottawa, Canada | THE OCCURRENCE OF EXTREME WAVE HEIGHT IN A TWO-DIMENSIONAL RANDOM WAVEFIELD IN COASTAL AREA<br>Zuorui Lyu, The University of Tokyo, Japan | HOW MUCH LONGER CAN AN OLD SEAWALL LAST? DESIGN, CONSTRUCTION AND MAINTENANCE LESSONS TAUGHT BY NORTH CRONULLAPRINCE STREET SEAWALL<br>Adrian Turnbull |  |
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1900 - 2300 **Conference Gala Dinner**  
Grand Ballroom, Level 6, International Convention Centre Sydney

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