

**SCIENTIFIC PROGRAM****Monday, 4<sup>th</sup> September**

08:00 - 13:30	Registration
13:30 – 17:00	Poster Placement
08:30 - 12:30	<b>Short Course</b> OpenFOAM and Applications to Coastal Engineering with Data Assessment <i>Cihan Sahin &amp; Gokhan Guler &amp; Guney Dogan &amp; Umutcan Inal</i>
12:00 - 13:00	Lunch
13:00 - 13:30	Welcome Speech
13:30 - 14:15	<b>Keynote Speaker 1</b> Port Development in a Changing World <i>Han Ligteringen, Professor Emeritus at Delft University of Technology</i> Moderator: <i>Ioan Nistor</i>
14:30 - 16:00	<b>Scientific Session 1</b> <b>Coastal Structures- Design and Monitoring</b> Chair: <i>Ioan Nistor</i>
14:30 - 14:45	Integration of Eco-Friendly Habitats into Coastal Structures <i>Dogac Sayar, Scott Baker, Ioan Nistor</i>
14:45 - 15:00	New Formula for Wave Reflection on Mound Breakwaters Using Neural Network Modelling <i>Pilar Diaz-Carrasco, Jorge Molines, Esther Gomez-Martin, Josep R. Medina</i>
15:00 - 15:15	Stability of Stone Gabion Armor Units for Composite Breakwater Mounds <i>Yuri Shimizu, Toru Aota, Shigeru Sakamoto, Takeharu Konami, Hideto Okido, Taro Arikawa</i>
15:15 - 15:30	A Study on Failure Characteristics of Dock Due to Abnormal Wind Waves <i>Kyu-Tae Shim, Kyu-Han Kim, Hyun-Dong Kim, Woo-Seok Jang</i>
15:30 - 15:45	Numerical Investigation of Wave Forces on Coastal Bridge Decks <i>Masahiro Ohkubo, Taro Arikawa, Hiroshi Ookubo, Hirotosugu Kasahara, Naoyuki Nakamura</i>
15:45 - 16:00	Roughness Factor of XBLOCPLUS Compared with Single- and Double-Layer Armor Units <i>Tim Ruwiel, Pieter Bakker, Markus Muttray</i>
16:00 - 16:30	Coffee Break

- 16:30 - 17:15**      **Keynote Speaker 2**  
Numerical Modeling of Coastal Sediment (Sand and Mud) Transport on Two Field Sites  
**Nobuhsa Kobayashi**, *Professor of Coastal Engineering, University of Delaware*  
Moderator: *Z. Tugce Yuksel*
- 17:30 - 18:45**      **Scientific Session 2**  
**Offshore Engineering / Coastal Engineering, Oceanography, Geology, and Ecology / Measurement Techniques**  
Chair: *Cihan Sahin*
- 17:30 - 17:45      Experimental and Numerical Investigation of a Floating Offshore Wind Turbine Platform  
**Umutcan Inal**, *M.Utku Ogur, Yalcin Yuksel, Ferdi Cakici, Cihan Sahin, Serdar Beji*
- 17:45 - 18:00      Stratification and Internal Tides on the Al-Batinah Shelf  
**Gerd Bruss**, *Bastien Queste, Estel Font, Rob Hall*
- 18:00 - 18:15      Mechanically Generated Linear Water Waves Propagating over Topography  
**Maciej Paprota**
- 18:15 - 18:30      Construction and Maintenance of Artificial Gravel Beaches in Croatia  
**Dalibor Carevic**, *Hanna Milicevic*
- 18:30 - 18:45      Development of a Low Cost, Self-Configuring ADCP and Integrated Deployment and Recovery System  
*David Velasco, Cristobal Molina*
- 19:00 - 22:00**      **Ice Breaker at Roof Lounge of Dedeman Hotel (Conference Venue)**

**Tuesday, 5<sup>th</sup> September**

- 09:00 - 09:45**      **Keynote Speaker 3**  
Coastal Hazards and Risks in the Mediterranean Sea Caused by Anthropogenic Climate Change  
**Piero Lionello**  
*Professor of Oceanographic and Atmospheric Science, University of Salento*  
Moderator: *Aysen Ergin*
- 10:00 - 11:15**      **Scientific Session 3**  
**Extreme Events - Assessment and Mitigation**  
Chair: *V. S. Ozgur Kirca*
- 10:00 - 10:15      Laboratory Observations of Tsunami Wave Propagation in a Meandering Channel  
**H. Anil Ari Guner, Yalcin Yuksel, Mehmet Ozturk, Cihan Sahin, G. Guney Dogan, Cem Yilmazer, Baris Aydin, Onur Altintas, Merve Ayaz, Sukru Ersoy, Ahmet Cevdet Yalciner**
- 10:15 – 10:30      Scenario-Based Coastal Flood Risk Assessment Considering the Failure of Shore Protection Facility  
**Kanta Okamoto, Kazuhiko Honda**
- 10:30 – 10:45      A Top-Down Approach for The Assessment of Coastal Inundation Risk in the San Andres Island (Caribbean Sea)  
**Francesco De Leo, Alejandro Cáceres-Euse, Pau Luque, Marta Marcos, Alejandro Orfila, Ismael Hernández-Carrasco**
- 10:45 – 11:00      On the Probability of Occurrence of Compound Storm Waves and Heavy Rainfall Events in the NW Mediterranean  
**Maria Aguilera Vidal, Jose A. Jimenez, Maria Isabel Ortego, Marc Sanuy**
- 11:00 – 11:15      Characterization of Coastal Erosion Associated to Tropical Storms and Hurricanes in Martinique, Lesser Antilles  
**Nico Valentini, Clement Bouvier**
- 11:15 – 11:45**      **Coffee Break**
- 11:45 – 13:00**      **Scientific Session 4**  
**Coastal Management, Nature-Based Solutions, Environment**  
Chair: *Pieter Bakker*
- 11:45 – 12:00      Relating Grass Cover Strength to Vegetation and Soil Parameters Using a Grass Pullout Test  
**Rens van der Meijden, Gosse Jan Steendam, Jord Warmink, Denie Augustijn**
- 12:00 – 12:15      Effectiveness of Sand Traps in Promoting Sediment Gain in Foredunes of a Semi-Natural Beach (Costa Brava, Spain)  
**Carla Garcia-Lozano, Carolina Marti-Llambrich**

- 12:15 – 12:30 Low-Cost Coastal Monitoring: Remote Sensing and Crowdsourcing  
**Yasser Assaf**, *Leonardo Damiani, Alessandra Saponieri*
- 12:30 – 12:45 Fuzzy-Based Coastal Vulnerability Model Application on Turkish Coasts with Heritage Sites  
**Akdeniz Ince**, *Gulizar Ozyurt Tarakcioglu, Aysen Ergin, Iremnaz Kosem, Cagatay Uysal*
- 12:45 - 13:00 Comparative Discussion on the Interdisciplinarity of ICZM Regulations of Turkey and Colombia  
**Gulizar Ozyurt Tarakcioglu**, *Aysen Ergin, Camilo M. Botero, Hasan Gokhan Guler, Akdeniz Ince, Carolina Santofimio, Daniella Garcia, Andrea C. Aguirre*

13:00 - 14:00 Lunch

- 14:00 - 14:45 **Keynote Speaker 4**  
The Role of Wave Overtopping Predictions in the Design of Climate Adaptive Coastal Structures  
**Marcel R.A. van Gent**  
*Professor of Coastal Structures at TU Delft / Department of Coastal Structures & Waves at Deltares*  
Moderator: *Yalcin Yuksel*

- 15:00 - 16:15 **Scientific Session 5**  
**Coastal Structures - Design and Monitoring**  
Chair: *Mehmet Ozturk*
- 15:00 - 15:15 Assessment of 3D Reconstruction Techniques in Physical Models  
**Rui Captao**, *Rute Lemos, Conceição Fortes, Ricardo Jónatas*
- 15:15 - 15:30 Wave Runup and Overtopping Assessment by Using Video Methodologies in Physical Models  
**Rute Lemos**, *Conceição J.E.M. Fortes, Ana Mendonça<sup>1</sup>, Umberto Andriolo*
- 15:30 - 15:45 The Laboratory Application of the Digital Photogrammetry for Measuring Rock Slope Damage on Rubble Mound Breakwater  
**Stefano Marino**, *Rosella Alessia Galantucci, Leonardo Damiani, Alessandra Saponieri*
- 15:45 - 16:00 Uncertainties in Rock-Armored Breakwaters Stability Laboratory Data  
**Giulio Scaravaglione**, *Jeffrey A. Melby, Giuseppe R. Tomasicchio, Leonardo Damiani*
- 16:00 - 16:15 Determination of Velocity Profiles on a Rigid Bed under the Effect of a Propeller Jet  
**Yagizhan Bilmez**, *Batuhan Gurek, H. Anil Ari Guner, Yeşim Çelikoğlu, Yalcin Yuksel*

16:15 - 16:45 Coffee Break

- 16:45 - 18:00**      **Scientific Session 6**  
**Sediment Transport Processes**  
Chair: *H. Anil Ari Guner*
- 16:45 - 17:00      Seasonal Sediment Dynamics in a Non-Tidal River Delta Coast: Observations and 3-D Modeling  
**Mehmet Ozturk**, *Cihan Sahin, Ahmet Altunsoy, H. Anil Ari Guner, Yalcin Yuksel, Kerem Guner*
- 17:00 - 17:15      Hydrodynamic Force Coefficients for Spherical Shell Fragments: Dependence on the Aspect-Ratio and Flatness  
**Ian Adams**, *Julian Simeonov, Carley Walker*
- 17:15 - 17:30      Modelling the Berm Formation on an Artificial Pebble Beach during Storm Events Using XBEACH-G  
**Hanna Milicevic**, *Dalibor Carevic, Suzana Ilic*
- 17:30 – 17:45      River Plume Dynamics in Small-Scale Micro-Tidal Estuarine Settings: The Misa River Case Study  
**Agnese Baldoni**, *Maurizio Brocchini, Eleonora Perugini, Pierluigi Penna, Luca Parlagreco*
- 17:45 – 18:00      Validation of Wind-Blown Sand Calculations in Sand Transport Model  
**Taiki Sekiguchi**, *Akiyoshi Katano, Yota Enomoto, Taro Arikawa*

**18:00 – 18:30**      **Coffee Break**

- 18:30 – 19:30**      **Scientific Session 7**  
**Coastal Structures – Design and Monitoring / Offshore Engineering**  
Chair: *Isikhan Guler*
- 18:30 – 18:45      Pipeline Onset of Scouring in Waves and Current: Influence of the Shields Parameter  
**Francesco Marini**, *Matteo Postacchini, Sara Corvaro, Maurizio Brocchini*
- 18:45 – 19:00      Damage Progression of a Rubble Mound Breakwater with Accropodes II and Accroberm I Armor Units Using Image-Based Approaches  
**Elisa Leone**, *Alberica Brancasi, Antonio Francone, Agostino Lauria, Felice D’Alessandro, Giuseppe R. Tomasicchio*
- 19:00 - 19:15      Wave Transmission on Low Crested Cube Breakwaters  
**Serhat Gumus**, *Duygu İşsever, Esin Cevik, Yalcin Yuksel*
- 19:15 - 19:30      Assessing Impact of Petrochemical Effluent on Heavy Metal Pollution in Musa Estuary: A Numerical Modeling Approach  
**Mohammad Javad Jourtani**, *Ahmad Shanehsazzadeh, Hossein Ardalan, Ziaaldin Almasi*

**19:30 – 23:00**      **Steering Committee Meeting**

**Wednesday, 6<sup>th</sup> September**

- 09:00 - 09:45**      **Keynote Speaker 5**  
The UE RRF in Italy for Renewable Energies in Sea Environment: Waves vs. Wind  
**Giuseppe Roberto Tomasicchio**, Professor at the University of Salento  
Moderator: *Esin Cevik*
- 10:00 - 11:15**      **Scientific Session 8**  
**Climate Change: Impact & Adaptation**  
Chair: *Esin Cevik*
- 10:00 - 10:15      Long-Term Change in Global Swell Dominance Based on 6 Decades of Re-Analysis Data  
**Bahareh Kamranzad**, *Khalid Amarouche*, *Adem Akpinar*
- 10:15 - 10:30      Potential Changes in Future Wind and Wave Climate Over the Black Sea  
**Fulya Islek**, *Yalcin Yuksel*, *Cihan Sahin*
- 10:30 - 10:45      Beyond Limits: Examining Beach Carrying Capacity Under Climate Change  
**Rut Romero**, *Herminia Valdemoro*, *Jose A. Jimenez*
- 10:45 - 11:00      Future Changes in Magnitude and Frequency of Extreme Waves in the Mediterranean Sea  
**Andrea Lira Loarca**, *Giovanni Besio*
- 11:00 - 11:15      Using Stilling Wave Basin to Withstand Sea Level Rise in Coastal Areas  
**Nisa Bahadiroglu**, *Dogan Kisacik*, *Lorenzo Cappiatti*
- 11:15 - 11:45**      **Coffee Break**
- 11:45 - 13:00**      **Scientific Session 9**  
**Renewable Energy / Climate Change: Impact & Adaptation**  
Chair: *Gozde Guney Dogan*
- 11:45 - 12:00      Comparing Behaviors of Actuator Disc and Porous Plate in Simulating Far-Field Hydrodynamics in the Strait of LARANTUKA: A Case Study  
**Kadir Orhan**, *Roberto Mayerle*, *Stephan Deschner*, *Furkan Altas*
- 12:00 - 12:15      Coastal Flooding Analysis of Coastal Settlements as a Prerequisite to Adaptation Measures  
**Andrea Tadic**, *Igor Ruzic*, *Nino Krvavica*
- 12:15 - 12:30      Assessment of the Coastal Vulnerability Index for the Complex Coastline of Primorje-Gorski Kotar County, Adriatic Sea, Croatia  
**Igor Ruzic**, *Andrea Tadic*, *Cedomir Benac*
- 12:30 - 12:45      About the Energy Yield from the Two-Layered Bosphorus Exchange Flow by Marine Current Turbines  
**Furkan Altas**, *Kadir Orhan*, *Stephan Deschner*, *Mehmet Ozturk*, *Cihan Sahin*, *Yalcin Yuksel*, *H. Anil Ari Guner*, *Roberto Mayerle*

- 12:45 - 13:00 Numerical Analysis of an Innovative Floating Platform for Offshore Wind Turbines  
*Elif Girgin, Berguzar Ozbahceci*
- 13:00 - 14:00 Lunch & Conference Photo**
- 14:00 - 14:45 Keynote Speaker 6**  
Threats of Coastal Water Quality: Lessons from the Arabian Gulf Ecosystems  
*Waleed Hamza, Professor at United Arab Emirates University*  
Moderator: *Ahmet C. Yalciner*
- 15:00 - 16:15 Scientific Session 10**  
**Coastal Hydrodynamics Processes and Marine Pollution**  
Chair: *Guluzar Ozyurt Tarakcioglu*
- 15:00 - 15:15 Physical Characterization of Non-Buoyant Plastic Particle Transport in the Coastal Zone: Experimental Method  
*Giovanni Passalacqua, Claudio Luppa, Annamaria Visco, Carla Faraci*
- 15:15 - 15:30 Experimental Research on Behavior of Plastic Debris of Negative Buoyancy in Oscillating Water Flow  
*Barbara Stachurska*
- 15:30 - 15:45 Hydrodynamic Characterization of Narta Lagoon  
*Mattia Scovenna*
- 15:45 - 16:00 Plastic Debris Distribution from Vigo Wastewater Treatment Plants  
*Magda Sousa, Américo Ribeiro, Maite deCastro, Marisela Des, Moncho Gomez-Gesteira, João Miguel Dias*
- 16:00 - 16:15 Dispersion Monitoring Services in the Mediterranean Sea: A Multi Model Statistical Approach  
*Beatrice Maddalena Scotto, Andrea Lira Loarca, Giovanni Besio*
- 16:15 - 16:45 Coffee Break**
- 16:45 - 18:00 Scientific Session 11**  
**Coastal Hydrodynamics Processes and Marine Pollution**  
Chair: *Dogan Kisacik*
- 16:45 - 17:00 Seasonal to Short-Term Dynamics of Nearshore Sand Bar due to Wave Climate  
*Nataliya Andreeva, Yana Saprykina, Nikolay Valchev, Petya Eftimova, Sergey Kuznetsov*
- 17:00 - 17:15 A Spatiotemporal Model Approach for Assessing the Plastic Debris Fate  
*Americo Ribeiro, Renato Mendes, Leonardo Azevedo, Luisa Lamas, João Dias, Magda Sousa*
- 17:15 - 17:30 Wave Spectra Reconstruction behind a Submerged Obstacle  
*Stefania Rocchi, Francesco Marini, Sara Corvaro, Carlo Lorenzoni, Alessandro Mancinelli*

- 17:30 - 17:45 Impact of Shipping Emissions on Ria De Aveiro Water Quality  
*Ana Picado, Nuno Vaz, Michael Russo, Alexandra Monteiro, João Miguel Dias*
- 17:45 - 18:00 1-DV Rans Modelling of Unsteady Boundary Layers  
*Furkan Sencer Kacar, V.S. Ozgur Kirca, Mehrnosh Kohandel Gargari, Selahattin Utku Yilmaz*

18:00 - 18:30 Coffee Break

- 18:30 - 19:15 **Scientific Session 12**  
**Climate Change: Impact & Adaptation / Port Planning and Design**  
Chair: *Berguzar Ozbahceci*
- 18:30 - 18:45 Field Measurements on Propeller Jet induced Loads on Quay Walls During Berthing and Unberthing Maneuvers  
*Toni Llull, Jesus Macias-Lezcano, Jochen Aberle*
- 18:45 - 19:00 Coastal Archaeological and Natural Sites of Turkiye Threatened by Sea Level Rise  
*Iremnaz Kosem, A. Cagatay Uysal, Akdeniz Ince, Gulizar Ozyurt Tarakcioglu, Aysen Ergin, M. Lutfi Suzen, Deniz Burcu Erciyas, Ugur Caliskan, Ahmet Cevdet Yalciner, Guzden Varinlioglu*
- 19:00 - 19:15 Water Circulation Modeling in the Gulf of Fethiye for Dredging Operations and Pollution Control  
*Bilge Karakutuk, Güney Dogan, Ahmet Cevdet Yalciner, Aysen Ergin*

19:15 Closing & Departure for the Conference Dinner with Boat Tour

### Thursday, 7<sup>th</sup> September

10:30 Optional Technical Tour to Hydrodynamics Research Laboratory (Departure from the hotel DEDEMAN)



**POSTERS****13:30-17:00 Monday, 4<sup>th</sup>****09:00-17:00 Tuesday, 5<sup>th</sup> – Wednesday, 6<sup>th</sup>****Climate change: Impact & adaptation**

- P1014 Climate Change Impacts and Risks of Extreme Coastal Water Level Events in the Mediterranean Sea  
*Filippo Giaroli, Giovanni Besio, Andrea Margarita Lira Loarca*
- P1090 Extreme Water Level Projections at the Coastal Cultural Heritage Sites of Turkiye  
*A.Cagatay Uysal, Gulizar Ozyurt Tarakcioglu, Iremnaz Kosem, Akdeniz Ince*
- P1102 Projection of Wave Storm Characteristics under the RCP8.5 Scenario of the Istanbul Canal  
*Recep Emre Cakmak, Khalid Amarouche, Adem Akpinar*

**Coastal Engineering, Oceanography, Geology and Ecology**

- P1019 Placing Antifer Blocks on Atlantic Tidal Coastline Using Echoscope® & Innovative Hydraulic System at New Safi Port  
*Levent Cengiz, Orhun Serhat Yarar*
- P1054 MLP-NN Model-Based Bias Correction Method for Significant Wave Height Hindcast Data Trained Based on Satellite Altimetry Observations  
*Khalid Amarouche, Adem Akpinar, Murat Kankal, Bahareh Kamranzad*
- P1074 DNS Modeling of Transition to Turbulence in Oscillatory Wave Boundary Layers  
*Selman Baysal, V. S. Ozgur Kirca, B. Mutlu Sumer*
- P1087 Application of Three-Dimensional Point Clouds for Monitoring Morphological Changes of the Beach  
*Andrea Tadic, Suzana Ilic, Igor Ruzic*
- P1107 3D Numerical Modelling of Solitary Wave Interaction over a Conical Island  
*Firoj Shaik, Mohammad Saud Afzal*

**Coastal Structures Design and Monitoring**

- P1033 Observation of Long-Period Waves and Ship Oscillation in Sakata Port, Japan  
**Yuhi Hayakawa**, Yuya Yoshida, Ryosuke Sudayama, Osamu Hayakawa, Takehito Horie, Hitoshi Tanaka
- P1056 Investigation of Wave Loads at the Lee-Side of a Rubble Mound Breakwater Head  
**Cem Sevindik**, Furkan Demir, Barış Ufuk Şentürk, Hasan Gökhan Güler, Cüneyt Baykal, Gülizar Özyurt Tarakçioğlu, Işıkhan Güler, Ahmet Cevdet Yalçiner, Ayşen Ergin
- P1078 Effects of Antifer Placement Methods on Wave Overtopping and Wave Loads on Crown-Walls  
**Furkan Demir**, Berkay Erler, Barış Ufuk Şentürk, Hasan Gökhan Güler, Cüneyt Baykal, Gülizar Özyurt Tarakçioğlu, Doğan Kısacık, Işıkhan Güler, Ahmet Cevdet Yalçiner, Ayşen Ergin

**Extreme Events - Assessment and Mitigation**

- P1070 Assessing Storm Surge Impacts on A Gas to Power Project Site: A Comparative Analysis in Colon, Panama  
**Mehrdad Salehi**
- P1084 Coastal Vulnerability Assessment of the French Mediterranean Coasts to Storms Flooding and Erosion Phenomena, Morphodynamic Modeling under Climate Change Projections  
**Nico Valentini**, Yann Balouin
- P1095 Hidralerta System - Aveiro Harbour  
**Conceicao J.E.M. Fortes**, Liliana Fortes, Catarina Zozimo, Michelle Kleinjan
- P1099 New Developments in the Praia da Vitória Bay and Harbour Early Warning System  
**Liliana Pinheiro**, Ana Catarina Zozimo, Conceicao Fortes
- P1100 Tsunami risk mapping along the Calabrian coasts  
**Giuseppe Barbaro**, Giandomenico Foti, Francesca Minniti, Luigi Mollica, Michele Folino Gallo,

- P1104 Investigation of the Damage on the Floating Docks Due to Tsunami-Induced Forces Calculated by Two Different Models  
**Berguzar Ozbahceci**, Hilal Çelik, Gozde Guney Doğan, Yağız Arda Çiçek, Işıkhan Guler, Ahmet Cevdet Yalçın

### Offshore Engineering

- P1024 Numerical Simulation of a Flexible Flat Net in Currents Based on the Application of Smoothed Particle Hydrodynamics  
**Raul Gonzalez-Avalos**, Corrado Altomare, Xavi Gironella, Alejandro J.C. Crespo, Iván Martínez-Estévez, José M. Domínguez

### Port Planning and Design

- P1066 Designing Harbour Layout with Strong Refraction in the Gulf of Riga, Eastern Baltic Sea  
**Rain Mannikus**, Widar Weizhi Wang, Fatemeh Najafzadeh

### Renewable Energy

- P1103 An Example of an Overtopping Device -Type Wave Energy Converter Located on a Vertical Seawall  
**Semih Can**, Dogan Kisacik, Lorenzo Cappiatti

### Sediment Transport Processes

- P1020 Estimation of Scour Depth around a Cylinder by Flow  
**Yota Enomoto**, Taro Arikawa
- P1047 Sensitivity of a North Sea Model to Bedform Related Bottom Roughness  
**Julietta Weber**, Robert Hagen, Frank Kusters
- P1076 Soft Measures Against Coastal Flooding as A Result of Expected Sea Level Rise in Izmir Bay  
**Onur Deniz Turkseven**, Dogan Kisacik, Cuneyt Baykal, Isikhan Guler



**10<sup>th</sup> Short Course/Conference on Applied Coastal Research**  
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P1088

Numerical Investigation of a Beach Restoration Project in Mersin using XBEACH and ONELINE Numerical Models

***Cuneyt Baykal, Cem Sevindik, Mert Yaman, Can Özsoy, Işıkhan Güler***