Technical programma Coastlab24

version 6, 13 May 2024

Coastlab24
13-16 May 2024, Delft University of Technology, NL

Tuesday 14-05-2024

		Room A: Centrale	Room B: Chemie	Room C: Chaos
08:00	09:00	**Registration**		
09:00	09:20	**Welcome**		
09:20	10:00	**Keynote 1: Heidi Nepf** Vegetation hydrodynamics to inform climate mitigation and adaptation		
10:00	11:00	**Wave overtopping 1**	**Modelling Nature 1**	**Laboratory Technologies 1**
	Tue1	**chair: Corrado Altomare**	**chair: Maria Maza**	**chair: Davide Wuthrich**
	10:00	**8 - Marisol Irias Mata** Hybrid Modelling Of Wave Overtopping At Rubble Mound Breakwaters	**50 - Arnold Van Rooijen** Physical Experiments Of Wave Attenuation Over Submerged Shellfish Reefs	**2 - Manuel Corrales-Gonzalez** Novel Real-Time Data Acquisition System Of Hydrodynamic Signals Obtained In Laboratory
	10:15	**9 - Marcel R.A. Van Gent** Low-Crested Structures In Front Of Rubble Mound Breakwaters	**58 - Marco Ghisalberti** Reefense: Design Of A Porous Modular Hybrid Reef For Coastal Protection	**24 - Maike Paul** Adapting Methods For Bed Level Assessment In And Around Submerged Vegetation
	10:30	**19 - Jorge Molines** Individual Wave Overtopping Volumes On Mound Breakwaters	**69 - Justin Geldard** Experimental Observations And Prediction Of Wave Attenuation Using A Coral Reef Restoration Approach	**51 - Sarah Krogh Iversen** Directional Spectrum Estimation For Sea States Generated By The Single Summation Method
	10:45	**15 - Vera Van Bergeijk** Overtopping Reduction By Artificial Reefs	**11 - Aruna Nandasena** Small-Scale Experimental Evidence On The Use Of Date Palm Forest To Mitigate Tsunami In The Arabian Sea	**38 - Christina Carstensen** Generation Of Scaled Long-Period Ship Waves In A Pump-Driven Flume
11:00	11:30	Coffee Break (Boiler Room)		
11:30	12:30	**Wave overtopping 2**	**Field Measurements 1**	**Case studies 1**
	Tue2	**chair: Alessandro Romano**	**chair: Paul Bayle**	**chair: Ian Coghlan**
	11:30	**48 - Margaret Libby** Quantifying Overtopping Performance Of Green-Gray Hybrid Infrastructure	**36 - Charlotte Dreger** Short-Term Coastal Impact Of Lakeshore For Natural Reserve Protection	**92 - Dennis Van Kester** 2D Model For Addu City Project - Wave Transformation Over Reef Flat
	11:45	**74 - Jordan Keck** The Effects Of Overtopping On Green/Grey Infrastructure	**93 - Sara Russo** Marelab: The Lab Of The Mediterranean Sea For Marine Renewable Energy	**10 - Carl Wehlitz** Hydraulic Stability Of The New Cubilok™ Armour Unit On A 3:4 Slope
	12:00	**21 - Corrado Altomare** Overtopping Flow Velocity Characterisation Of Focused Waves On Promenades Using The Bubble Image Velocimetry Technique	**130 - Ruurd Jaarsma** ADCP suspended sediment transport monitoring using acoustic particle radius	**66 - Francois Flocard** 50 Years Of Hanbar Concrete Units In Australia And New-Zealand: Lessons Learned From Physical Modelling Studies And Recently Built Structures
	12:15	**126 - Marc Willems** Performance Analysis Of An Innovative Field Measurement Setup For Wave Overtopping At A Dike On A Shallow Foreshore	**85 - Yiqun Ye** Observation Of Ocean Wave Based On Binocular Vision In The Swash Zone Of Yazhou Bay	**154 - Esteban Escobar Valencia** 2D And 3D Physical Model Testing For The Rehabilitation On The Frioul Port Breakwater (France)
12:30	13:45	Lunch break (Boiler Room)		
13:45	14:45	**Wave overtopping 3**	**Coastal hydrodynamics 1**	**Composite Modelling 1**
	Tue3	**chair: Vera van Bergeijk**	**chair: Ioan Nistor**	**chair: Sang-Ho Oh**
	13:45	**122 - Fatemeh Hajivalie** Experimental Study On The Effect Of The Wavelength On Wave Overtopping Over Recurved Walls	**40 - Amit Ravindra Patil** A Multiscale 1D-2D Coupled Model Of The Scheldt Estuary Rivers And The European Continental Shelf	**37 - Joost Den Bieman** Validation Of An Efficient Non-Hydrostatic Wave Model As A Design Tool For Foreshores In Physical Models
	14:00	**123 - Yuri Pepi** Effectiveness Of Stilling Wave Basins In Reducing Wave Overtopping On Dikes And Rubble Mound Breakwaters	**65 - Kevin Bobites** Advp Measurements Of Flow Over Low-Angle Bedforms In A Laboratory Flume Setup	**134 - David Lucio** Enhancing Coastal Flooding Preparedness To Climate Change: An Experimental Analysis Of Urban-Integrated Non-Conventional Adaptation Solutions
	14:15	**140 - Daniele Celli** Numerical Tools For Wave Overtopping At Rubble Mound Breakwaters With Submerged Berms	**68 - Christine Baker** Wave Breaking Eddies And Transient Rip Current Dynamics In Large-Scale Wave Basin Experiments	**41 - Phan Khanh Linh** A Model Of Wave Attenuation In Vegetated Environments
	14:30	**32 - Zhong Peng** Laboratory Study On Wave Overtopping Across Coastal Dikes With A Vegetated Foreshore	**82 - Francisco Pinto** Scour Hole Evolution Near A Detached Low-Crested Rubble-Mound Breakwater	
14:45	15:05	Coffee Break (Boiler Room)		
15:05	16:20	**Wave-structure interaction 1**	**Wave generation & analysis**	**Tsunamis**
	Tue4	**chair: Phan Khanh Linh**	**chair: Alessandro Antonini**	**chair: Nils Goseberg**
	15:05	**28 - Ermano De Almeida** Wave Loads On Hydraulic Structures	**12 - Thomas Lykke Andersen** Applicability Of Reflection Separation Algorithms To Nonlinear Irregular Waves Over Sloping Foreshores	**14 - Storm Roberts** Physical Modelling Of Boulder Transport Under The Influence Of Tsunami Waves
	15:20	**30 - Jose Luis Galmes Giralt** Physical Modelling Of A Caisson Breakwater Under Impulsive Cyclonic Waves : Case Of Port East (Reunion Island)	**25 - Mads Røge Eldrup** Generation Of Highly Nonlinear Waves In A Short Wave Flume	**45 - Kellen Doyle** Tsunami Debris Damming Drag Forces And Associated Coefficients On Elevated Coastal Structure Columns
	15:35	**84 - Maximilian Herbst** Full-Scale Experimental Study On Wave Impacts At Stepped Revetments	**76 - Pedro Lomonaco** Performance Assessment Of Two Active Absorption Systems In A Large Wave Flume	**77 - Maarten Buitelaar** Dam-Break Waves Over Rough Beds
	15:50	**127 - ~~Matteo Centorami~~ Alessandro Romano** Parametric Analysis Of Wave-Induced Forces And Overtopping On Composite Vertical Breakwaters With Retreated Crown Wall	**173 - Dennis Belleter** Considerations for designing a new wave generator system in an existing flume	**87 - David McGovern** Tsunami Runup Attenuation By Onshore Obstacles
	16:05	**135 - Georges Govaere** Run Up Reflection And Stability Coefficients For Ordered Cube Slopes With Energy Dissipation	**42 - Menno De Ridder** Validation Of A Nonlinear Wave Decompistion Method Including Shoaling	**157 - Erica Treflik-Body** Large-Scale Laboratory Experiments On The Wave Generation Due To The Collapse Of Partially And Fully Submerged Granular Columns
16:20	16:40	Coffee Break (Boiler Room)		
16:40	17:40	**Highlighted talks**	**Coastal Structures 1**	**Modelling Nature 2**
	Tue5	**chair: Vincent Gruwez**	**chair: Mads Røge Eldrup**	**chair: Maike Paul**
	16:40	**107 - Paulo Rosa Santos** Experimental study on wave damping potential of seaweed aquaculture systems on the Portuguese coast	**4 - Prasanthi Ranasinghe** Adaptation Of Different Scales In The Same 3D Physical Model To Assess The Different Armour Sizes	**111 - Barnapratim Sarma** Flow Structure Of A Heterogeneous Seagrass Canopy
	16:55	**136 - Nils Goseberg** Arctic Coastline Erosion: Novel Experimental Avenues Help Understand Its Response To A Changing Climate	**7 - Sergio Muñoz-Palao** Digital Profiler Based On A Low-Cost 3D-Scanner To Evaluate The Hydraulic Performance Of Homogeneous Low-Crested Structures	**72 - Mitchel Provan** Large-Scale Experimental Model Of Edge Treatments For Constructed Salt Marshes
	17:10	**141 - Ian Chandler** Tsunami Ping-Pong: Generating The Whole Tsunami Event	**18 - Young-Taek Kim** Stability Of Concrete Armor Unit (Tetrapod) On Rear Side Of The Rubble Mound Structures With Rectangular Super Structure	**115 - Garance Marlier** Determination Of Drag And Inertia Coefficients By An Analytical Model
	17:25	**16 - Maarten Kleinhans** Turning The Tide: Live-Bed Scale Experiments Of Bar-Dominated Estuaries And Effects Of Dredging On Intertidal Habitat	**44 - Mohammadkazem Imani** Experimental Study Of Parsian Port Breakwater Toe Stability	**138 - Viktoria Kosmalla** Towards Accurate Modeling Of Aboveground Vegetation In White Dunes: Biomechanics Of Marram Grass (Ammophila Arenaria)

Meeting of the IAHR Maritime Committee

Wednesday 15-05-2024

Keynote 2: Josep Medina
Breakwaters in a living environment

09:00 – 09:40

09:45 – 10:45 Wed1

Modelling Nature 3	Infragravity Waves 1	Flood safety
chair: Heidi Nepf	**chair: Peter Troch**	**chair: Vana Tsimopoulou**
116 - Maria Maza A New Formulation For Vegetation Induced Damping Under Waves And Currents Based On Their Standing Biomass	**54 - Gal Akrish** Unstructured swan modelling of free infragravity waves over the Southern North Sea	**70 - Daniel McMann** Small-Scale Experiments' Ability To Augment Large Lab Testing For Designing Nature-Based And Hybrid Solutions For Coastal Flood Hazard Mitigation
103 - Alessandro Antonini Large-Scale Test Of Extreme Hydrodynamic Conditions Over Coastal Salt Marshes	**78 - Patrick Oosterlo** Wave And Wave Overtopping Measurements In A Complex Area And At A Real Dike	**137 - Mario Van Den Berg** Large-Scale Levee Breach Experiments With Foreshores
63 - Ganga Caldera Seasonal Variation Of Wave Attenuation Capacity Of Canadian Saltmarsh Vegetation	**144 - Myriam Belkadi** Characterization Of Very Low Frequency Wave Energy Distribution In A Coral Reef-Lagoon System	**152 - Mariana Roldán Upegui** Analysis Of Hybrid Solutions For Coastal Protection Combining Physical And Numerical Cfd Modeling
23 - Su Kalloe Physical Modelling Tests With Flexible Woody Vegetation Mimics	**158 - Damien Sous** Coupled Short-Ig Wave Dunamics Over A Shallow Barrier Reef	**118 - Fuyuan Chen** Study of the effect of spur dikes on beach protection based on physical model experiment

10:45 – 11:05 Coffee Break (Boiler Room)

11:05 – 12:05 Wed2

Wave-structure int. 2	Infragravity Waves 2	Case studies 2
chair: Giorgio Bellotti	**chair: Marion Tissier**	**chair: Jorge Molines**
46 - Suzanna Zwanenburg Large Scale Physical Model Study On Clay Erosion With Gras Cover On Primary Coastal Defence Structures	**142 - Lorenzo Melito** Lagrangian Measurements Of Surface Water Waves: Relation Between Drift Velocities And Set-Down	**27 - Elodie Baillit** Study Of The Hydraulic Response Of A High Permeable Breakwater Using Physical Modelling
6 - Pilar Díaz-Carrasco Neural Network Calibration Method For Varans Models To Analyse Wave-Porous Structures Interaction	**125 - Vincent Gruwez** Field Observations Of The Influence Of Infragravity Waves On Wave Overtopping At A Dike On A Shallow Foreshore	**128 - Annelie Baines** Innovative Coastal Structure Solutions And The Role Of Physical Modelling In The Design Process (Dawlish Mog2 Casino)
143 - Bonaventura Tagliafierro The Surviwec Project: An Open-Source Experimental Database For Extreme Loads On A Moored Cylinder Under Regular And Focused Waves	**98 - Henry Alfaro** Hybrid Forecast System Of Overtopping With Infragravity Wave Included	**155 - Wim Kortlever** Physical Model Study Of Standing Wave Impact Loads On Gates And Decks Of The Existing Discharge Sluices In The Afsluitdijk The Netherlands
73 - Sargol Memar Stability Of Estuarine Groyne During Overflowing Long-Period Primary Ship-Induced Waves Based On Laboratory Experiments	**149 - Clara Ribeiro** Observing And Characterizing Infragravity Waves Through Different Sampling Devices: A Case-Study Off The Belgian Coast	**39 - Hong Son Truong** Flow Exchange In Vegetated Environments: Integrating Experimental Insights Into Practical Engineering

Thursday 16-05-2024

Keynote 3: Coen Kuiper and Emiel Boerma
The role of physical modelling in the rehabilitation works for the Afsluitdijk

09:00 – 09:40 40

09:45 – 10:45 Thu1

Coastal Structures 2	Laboratory Technologies 2	Field Measurements 2
chair: Patricia Mares Nasarre	**chair: Maximilian Streicher**	**chair: Patrick Oosterlo**
49 - Ryan Lowe Wave Basin Experiments Of Wave-Driven Hydrodynamics Over Submerged Coastal Structures And Artificial Reefs	**75 - Chi-Yu Li** Measurement Of Spatial-Temporal Waves In The Laboratory Using Computer Vision Technolog	**99 - Georges Govaere** Spectral Wave Characterization Of The Pacific Coast Of Costa Rica
52 - Sang-Ho Oh Wave Pressures Acting On The Pavement Behind The Sloping Revetment	**79 - Paul Bayle** The Delta Transport Processes Laboratory: Lab For Surface And Internal Wave-Induced Currents Under Rotation	**114 - Jim Tukker** Decay Of Bow Thruster Induced Near-Bed Flow Velocities At A Vertical Quay Wall: A Field Measurement
61 - Beatriz Rodriguez A New Wave Breaking Benchmark On Rubble Mound Breakwaters	**90 - Dorette Regout** Air-Water Flow Properties In Highly Unsteady Flows	**64 - Marta Alvir** Application Of Remote Sensing Technologies On Industrial Outfalls
105 - Sungwon Shin Experimental And Numerical Inter-Comparison On Green And Gray Mitigation Alternatives In Flooding Reduction In Coastal Region	**100 - Ronald Viquez Acosta** Design Of Passive Energy Absorbers For The Imares-Ucr Wave Tank.	**101 - XiaoLin Han** Coastal Tidal Flat And Tidal Current Observation Based On Satellite Remote Sensing

10:45 – 11:15 Coffee Break (Boiler Room)

11:15 – 12:15 Thu2

Coastal Structures 3	Coastal hydrodynamics 2	Renewable energy
chair: Josep Medina	**chair: Ryan Lowe**	**chair: Francisco Taveiro-Pinto**
59 - Mireille Escudero Sustainable And Bioengineered Concrete For Armor Units Of Low-Crested Structures	**94 - Yaxiong Shen** Wave Impacts On Cliffs: From The Field To The Laboratory	**96 - Myrta Castellino** Experimental Test Bench In A Wave Flume For The Development Of A New Mini Morphatile Wells Turbine
110 - Serim Dogac Sayar Integration Of Eco-Friendly Armour Units Into Coastal Structures	**109 - Ioannis Karmpadakis** Breaking Wave Statistics In Short-Crested Seas	**20 - Timothy Vervaet** Physical Modelling Of A Centralized Controlled Array Of Five Wecfarm Wave Energy Converters
147 - Aron Lawniczak Investigation Of Coastalock Performance On A Breakwater With Porous Core	**119 - Jos Muller** Quantifying Wave-Induced Hydrodynamics Near A Saltmarsh Cliff: An Experimental Piv Study	**81 - Mario Lopez Gallego** Wave Tank Experiments Of A Novel Floating Photovoltaic System
130 - Tim Ruwiel The application of flexible and porous concrete structures in training works and scour protection		**83 - Laurens Cromheeke** Physical Modelling Of The Wave Field Around An Array Of Centrally Controlled Wave Energy Converters

12:15 – 13:45 Lunch break (Boiler Room)

13:45 – 14:45 Thu3

Laboratory Technologies 3	Composite Modelling 2	Sediment and Scour
chair: Prasanthi Ranasinghe	**chair: Thomas Lykke Andersen**	**chair: Marcel van Gent**
113 - Dimitrios Dermentzoglou Wave Reflection Analyses On Laser Scan Data From A Model Salt Marsh	**62 - Antonio Tomas** Local Head Losses And Drag Coefficients Characterization In Coastal Infrastructures	**22 - Eise Nota** A Morphological Assessment On The Effects Of Embankments On Sediment Transport In Sandy Estuaries
129 - Bas Hofland Rocking Of Single Layer Armour Units Measured By Embedded Sensors	**26 - Pauline Berte** Assessment Of Wave Loads On Bridge Piers Using Physical And Numerical Modelling	**132 - Björn Mehrtens** Experimental Investigation Of Coastal Foredune Erosion
131 - Maximilian Streicher Evaluation Of The Accuracy Of The Generated Wave Fields In The Coastal & Ocean Basin (Cob)	**117 - Maria Gkougkoudi-Papaioannou** Numerical And Physical Modelling Of The Pore Pressure Development Around A Monopile Foundation	**139 - Thomas Van Veelen** How Artificial Salt Marsh Vegetation Reduces The Threshold For Sediment Resuspension In Wave-Current Flows
148 - Steven Le Bars Concrete Armour Unit Breakwater Physical Model Monitoring With 3D Modeling Tools	**124 - Joe El Rahi** Exploring Wave-Vegetation Interaction At Blade Scale: A Comprehensive Analysis Of A Flexible Cylinder Through Experimental Data And A Direct Numerical Simulation	**145 - Lukas Ahrenbeck** Exploring The Influence Of Artificial Root Systems Modeled After Marram Grass (Ammophila Arenaria) On Dune Erosion

14:45 – 15:15 Coffee Break (Boiler Room)

15:15 – 16:15 Thu4

Coastal Structures 4	Case studies 3
chair: Pedro Lomonaco	**chair Myrta Castellino**
133 - Patricia Mares-Nasarre Armor Damage On Groins Under Ship Wave Attack Using Field Data	**17 - Ivandito Herdayanditya** Experimental Study Of The Wave Field Around A Monopile Due To Moderate Steepness Irregular Incident Waves
97 - Nasrin Hassanpour Analisis Of Upgrading Low-Crested Structures As An Adaptation Measure To Climate Change For Coastal Protection: A Hybrid Aproach	**56 - Rens Van Der Meijden** Combined Pullout Tests And Wave Overtopping Simulations On Three Species-Rich Grass Covered Dikes In The Netherlands
121 - Ian Coghlan Physical Modelling Of Rock Bags Under Wave Attack	**156 - Vana Tsimopoulou** Geophysical Monitoring Of Large-Scale Levee Overflow Experiments With Electric Resistivity Tomography
159 - Johan Kieviet Verification Of New Double Suspention Keofloat To Minimise Wave Height Inaccuracies In A Physical Model Resulting From Rotation In A 3D Wave Agitataion Study	**57 - Christian Van Nieuwenhuizen** Physical Modelling Of Propeller Jet Induced Scour Near Quay Walls

16:15 – 16:45 **Closing Ceremony**