



# UK Coastal Research Conference

## Liverpool 2025

**The Liner Hotel, Lord Nelson Street, Liverpool, L3 5QB**

**Tuesday 1 July – Thursday 3 July 2025**

### PROGRAMME

#### Day 1

#### Tuesday 1 July

<b>08:45 – 14:30</b>	<b>Hilbre Island field trip</b>  The coach will be departing from The Liner Hotel at 08:45 prompt. Return is approximate. Please wear appropriate clothing, footwear and bring a bottle of water.  See <a href="https://www.hilbreisland.info/">https://www.hilbreisland.info/</a> for more details of the islands and photos of various stages of the walk.
<b>09:00 – 16:30</b>	<b>Workshop</b>  How can working across disciplines and sectors improve decision making in coastal management? Lessons learned from the Co-Opt project.
<b>18:30</b>	<b>Icebreaker at the Philharmonic Dining Rooms</b>  36 Hope Street, Liverpool, L1 9BX



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Day 2

Wednesday 2 July

<b>09:00 – 10:30</b>	<b>Plenary Session (Britannic 2)</b>	
09:00	Introduction & Opening of the Conference. Prof Penny Holliday, Chief Scientist, National Oceanography Centre Laurent Amoudry, National Oceanography Centre	
09:45	Keynote 1: Prof Graham Underwood, University of Essex <i>Restoring resilient and productive coastal ecosystems for the 21st century</i>	
<b>10:30 – 11:00</b>	<b>Coffee / Tea Break</b>	
<b>11:00 – 12:30</b>	<b>Parallel sessions: left in Britannic 2; right in Britannic 1</b>	
	Water Quality and Coastal Ecology	Applied Research: Decision Support Tools
<b>12:30 – 13:30</b>	<b>Lunch (Britannic 3)</b>	
<b>13:30 – 15:00</b>	<b>Parallel sessions: left in Britannic 2; right in Britannic 1</b>	
	Coastal Community Resilience	Digital coasts: New Data and Datasets
<b>15:00 – 15:30</b>	<b>Coffee / Tea Break</b>	
<b>15:30 – 17:30</b>	<b>Poster session (in Britannic 3)</b>	
<b>19:00</b>	<b>Dinner at the Royal Liver Building</b>  Liverpool Waterfront, Liverpool, L3 1HU (Pier Head; entrance river side)	

Colours refer to the room: **Britannic 1**, **Britannic 2**, **Britannic 3**



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Day 3

Thursday 3 July

<b>09:00 – 10:30</b>	<b>Plenary Session (Britannic 2)</b>	
09:00	Keynote 2: Nick Hardiman, Environment Agency <i>Research into action: making evidence count in the dynamic delivery climate on the coast.</i>	
09:45	Keynote 3: Dr Dafni Sifnioti, EDF <i>Waves, Winds and Watts: Coastal Research in an Energy Industry setting</i>	
<b>10:30 – 11:00</b>	<b>Coffee / Tea Break</b>	
<b>11:00 – 12:30</b>	<b>Parallel sessions: left in Britannic 2; right in Britannic 1</b>	
	Digital Coasts: Satellite Sensing	Applied Research: From Research to Shoreline Management Policies
<b>12:30 – 13:30</b>	<b>Lunch (Britannic 3)</b>	
<b>13:30 – 15:00</b>	<b>Parallel sessions: left in Britannic 2; right in Britannic 1</b>	
	Geophysics: Estuaries and Intertidal Zones	Geophysics: Beaches and Dunes
<b>15:00 – 15:30</b>	<b>Coffee / Tea Break</b>	
<b>15:30 – 16:45</b>	<b>Parallel sessions: left in Britannic 2; right in Britannic 1</b>	
	Geophysics: Hydrodynamics and Flooding	Geophysics: Future Projections and Impacts of Human Interventions
<b>16:45 – 17:15</b>	<b>Plenary end of conference (Britannic 2)</b> Laurent Amoudry, NOC, et al.	

Colours refer to the room: **Britannic 1**, **Britannic 2**, **Britannic 3**

## List of presentations

<b>Wed 2 July 11:00 – 12:30</b>	<b>Water quality and coastal ecology (Chair: Jason Kirby; Britannic 2)</b>	
11:00 – 11:15	Charlotte Lyddon	Vulnerability of Estuary Water Quality to Climate Change
11:15 – 11:30	Peter Robins	Changing Estuary Residence Times
11:30 – 11:45	Hachem Kassem*	Paving the Way for Managing Recreational Activities in MPAs
11:45 – 12:00	Yixuan Chang	Multi-Decadal Monitoring of Coastal Dune Vegetation and Water Dynamics Using High-Resolution Satellite Imagery
12:00 – 12:15	Monica McCard	Functional Response Metrics Explain and Predict High but Differing Ecological Impacts of Juvenile and Adult Lionfish.
12:15 – 12:30	Will Manning	Habitat Compensation and Restoration Programme (HCRP): 20+ Years of Managed Realignment in a Changing Landscape

<b>Wed 2 July 11:00 – 12:30</b>	<b>Applied research: decision support tools (chair: Lee Swift; Britannic 1)</b>	
11:00 – 11:15	Tim Poate*	SPLASH: Understanding Wave Overtopping Using Artificial Intelligence
11:15 – 11:30	Adam Ward	Leveraging Artificial Intelligence for Storm Surge Prediction
11:30 – 11:45	Zehua Zhong	Probabilistic Assessment of Exposure to Coastal Hazards at a Nuclear Power Station Development Site in the UK
11:45 – 12:00	Gerhard Masselink	Predicting Dune Evolution in Cornwall for Coastal Management
12:00 – 12:15	Josie-Alice Kirby	Determining Future Shoreline Position of a Highly Variable Coastline for Coastal Management Applications Using High Resolution Coastal Typology Mapping
12:15 – 12:30	Mark Wiggins	Defining Beach Recovery: A Case Study Comparison of Erosion and Flood Risk Reporting Metrics

<b>Wed 2 July 13:30 – 15:00</b>	<b>Coastal community resilience (Chair: Marta Payo Payo; Britannic 2)</b>	
13:30 – 13:45	Sien van der Plank	Resilience Over a Lifetime of Change on the Coast
13:45 – 14:00	Marta Meschini	Co-Creating Resilient Coasts: Advancing Equitable and Community-Led Management with DPSIR+
14:00 – 14:15	Serena Pollastri	Coastal Nature Lab: Crafting Nature Based Solutions for Community-Led Coastal Protection
14:15 – 14:30	David McGovern	Coastal Structure Vulnerability to Sea Level Rise: Initial Results
14:30 – 14:45	Juan Montalvan Lume	(Co)Raising Blue Naturesocieties: Transcultural Source-To-Sea Approaches Towards Regenerative Coastal Urban Ecosystems
14:45 – 15:00	Elina Apine	Social acceptance of nature-based solutions for coastal flood risk management in the UK

<b>Wed 2 July 13:30 – 15:00</b>	<b>Digital coasts: new data and datasets (Chair: Xiaoyan Wei; Britannic 1)</b>	
13:30 – 13:45	Jenny Brown	Asymmetry in Wave Overtopping Hazard Relative to Predicted High Tide
13:45 – 14:00	Chris Blenkinsopp	High-Resolution Long-Term Monitoring of Wave Runup and Morphology Change on Gravel Beaches Using an Off-Grid Lidar System
14:00 – 14:15	Joseff Saunders	From Data to Digital Twin: Mapping a Maldivian Atoll for Sea Level Rise and Storm Surge Modelling
14:15 – 14:30	Jakub Michalski	New High-Resolution Imaging of Submesoscale Surface Divergence in a Macro Tidal Environment
14:30 – 14:45	Nefeli Makrygianni	km-scale regional systems coupled at high frequency for meteotsunamis prediction
14:45 – 15:00	Faye Nielsen	From Points to Pixels: An Interactive Digital Coastline of Projected Sea Level Rise Across New Zealand

<b>Thu 3 July 11:00 – 12:30</b>	<b>Digital coasts: satellite sensing (chair: Suzanna Ilic; Britannic 2)</b>	
11:00 – 11:15	Aikaterini Konstantinou	Observations of Gravel Beach Dynamics from Space
11:15 – 11:30	Sophie Mann	A Novel Methodology to Map Gravel Beaches Across the UK Using Satellite Synthetic Aperture Radar (SAR) Data
11:30 – 11:45	Alfred Hewetson	Shoreline Monitoring Using Planetscope Satellite Imagery
11:45 – 12:00	Paul Bell	SWOT-Satellite-Enabled Tidal Data in Estuaries
12:00 – 12:15	Dougal Lichtman	Nearshore Wave Breaking Detection Using Satellite Radar Altimetry
12:15 – 12:30	Clive Neil	Satellite-Enabled Temporal Water Line Inter-Tidal Monitoring: 3 Case Studies: The Mersey, the Wash & Thames Estuary

<b>Thu 3 July 11:00 – 12:30</b>	<b>Applied Research: From Research to Shoreline Management Policies (chair: Helen Jay; Britannic 1)</b>	
11:00 – 11:15	Uwe Dornbusch	9 Years of Landward and Laterally Progressing Cliff Retreat in Response to Progressive Defence Failure, Climping, West Sussex.
11:15 – 11:30	Michael Walkden	From Academia to Application: Enhancing Coastal Cliff Risk Mapping for a Changing Climate
11:30 – 11:45	Andres Payo	Understanding Coastal Protection by Gravel Barriers in a Changing Climate: UK Gravel Barriers Project
11:45 – 12:00	Liz Hopley and Nish Halwyn	The Interagency Coastal Geomorphology Network- Who Are We and What Do We Want? -How To Make Your Research Useful for Coastal Conservation
12:00 – 12:15	Dr Tim Stojanovic	Historical Evolution of Shoreline Management Planning the UK: 1990-2024
12:15 – 12:30	Katie Eckford	Using Adaptive Pathways to Deliver Shoreline Management Plan Policies

<b>Thu 3 July 13:30 – 15:00</b>	<b>Geophysics: Estuaries and Intertidal Zones (chair: Laurent Amoudry; Britannic 2)</b>	
13:30 – 13:45	Renjie Zhu	Impact of Intertidal Habitats on Salt Dynamics in Tidally Dominated, Periodically Weakly Stratified Estuaries
13:45 – 14:00	James Tempest	Regional Vulnerability of Saltmarshes in Great Britain to Sea Level Rise and Drowning Over the Next 200 Years
14:00 – 14:15	Heidi Burgess	The Importance of Small Estuaries on the Sediment Budgets of the Wider Seascape: What Do We Really Know?
14:15 – 14:30	Constantinos Matsoukis	Coastal Flooding Mitigation by Implementing Hybrid Flood Defenses Consisting of Embankment and Vegetation Fields
14:30 – 14:45	Leo Pancrazzi	Interactions Between Fine and Coarse-Grained Sedimentary Materials in the Formation and Development of Barrier Spits at Estuary Mouths: A Case Study of Ynyslas Spit, Wales
14:45 – 15:00	Munawir Pratama	Characterising Various Ebb-Tidal Jet Structures Observed in UK Estuaries Through Idealised Modelling

<b>Thu 3 July 13:30 – 15:00</b>	<b>Geophysics: Beaches and Dunes (Chair: Tim Poate; Britannic 1)</b>	
13:30 – 13:45	Tom Hamilton	Understanding Gravel Beach and Barrier Systems: A New Morphodynamic Approach to Classification
13:45 – 14:00	Nina Ataee	Novel Luminescence Dating Approaches to Provide Unique Insights into Coastal Gravel Barrier Dynamics
14:00 – 14:15	Connor McCarron	Experimental Investigation of Mixed Sand and Gravel Beach Morphodynamics
14:15 – 14:30	Liane Brodie	Sediment Delivery from Beach to Dune at Multiple Sites Along a Heterogeneous Coastline
14:30 – 14:45	Demetra Cristaudo	Enhancing Coastal Processes Understanding at Nearshore Breakwaters Using Numerical Modelling: A Case Study for Elmer Beach, West Sussex
14:45 – 15:00	Wassim Seksaf	From Dunes to Offshore: A Seismic Approach to Coastal Sediment Resource Assessment

<b>Thu 3 July 15:30 – 16:45</b>	<b>Geophysics: Hydrodynamics and Flooding (Chair: Jenny Brown; Britannic 2)</b>	
15:30 – 15:45	William Wright	Real-Time Phase-Resolved Wave Prediction in the Coastal Zone
15:45 – 16:00	Florian Bellafont	Supporting Coastal Management Decision-Making with High-Resolution Wave Modelling
16:00 – 16:15	Ioannis Karpmpadakis*	Practical Guidance for Representative Wave Heights and Periods in the Surf Zone
16:15 – 16:30	Demetra Cristaudo*	Hunstanton to Snettisham: A Probabilistic Approach to Erosion Enhanced Flooding
16:30 – 16:45	Ankita Bhattacharya	Impact of Groundwater in Compound Flooding: A Case Study of the Conwy Estuary in Wales.

<b>Thu 3 July 15:30 – 16:45</b>	<b>Geophysics: Future Projections and Impacts of Human Interventions (Chair: Charlotte Lyddon; Britannic 1)</b>	
15:30 – 15:45	Katie Hodge	Future High Resolution UK Wave Projections
15:45 – 16:00	Lucy Bricheno	Present and Future Seabed Vulnerability to the Climate-Crisis Over North Western European Shelf.
16:00 – 16:15	Christopher A. Unsworth	The Dominant Role of Turbulence in Driving Changes to Seabed Substrates Away from Windfarm Monopiles.
16:15 – 16:30	Arya Iwantoro	Modelling the Impacts of Sea-Level Rise on Soil Carbon Dynamics in Mangrove Forests
16:30 – 16:45	Benedict D. Rogers	Prediction of Seaweed Ingress into Cooling Water Intakes for Torness Power Station

Note: \* denotes speaker presenting on behalf of someone else.



	<b>Wed 2 July: 15:30 – 17:30</b>	<b>Posters (Britannic 3)</b>
1	Charlotte Lyddon	Coast-R Network+ and the Resilience Coastal Communities and Seas Programme
2	Neil Watson	If We Build It, Will They Come?
3	Bin Guo	Investigating the Impact of Meteorological Extremes on the Coastal Ecosystems of the Northwest European Shelf
4	Stanley W. Shen	Stochastic Modelling of Particle Transport from River to Ocean: Inertial Effects on Plastic Dispersion and Accumulation
5	Cai Bird	A Deep Dive into a Unique Archive of Radar-Derived Coastal Monitoring Datasets Collected in England Between 2015 and 2025 in Support of Shoreline Management Activities
6	Bhargvi Sharan	Multi-Temporal Assessment of Reactivation in Deep-Seated UK Coastal Landslide Complexes
7	Jennifer Weeks	A New Framework to Explore High-End Sea-Level Rise for the UK: Updating H++
8	Doug Pender	Joint Probability Modelling for Coasts and Estuaries: Guidance and Best Practice (FRS18199)
9	Dr Lee Swift	The Flood and Coastal Erosion Risk Management Research Programme - Working with Others to Understand Research Needs and Create Impactful Research
10	Aoife Williams	Sea Level Rise and Coastal Flood Warning
11	Tegan Quinn	Vulnerability of Coastal Energy Infrastructure to Climate and Environmental Change
12	Tharindu Manamperi	Using Deep Learning for Shoreline Predictions
13	Hendy Fatchurohman	Vanishing Shores: Centennial-Scale Shoreline Change in a Tectonically and Anthropogenically Influenced Coastal System in Southern Java, Indonesia
14	Julia Rulent	Development of Numerical Modelling Tools to Improve Our Understanding of Future Coastal Flood Hazards.
15	Alex Arnold	Applying a fully coupled km-scale model to investigate compound events impacting UK coastal regions
16	Xiaoyan Wei	Assessing Integrated Extreme Water Level Risks in UK Estuaries Under Climate Change

17	Jie Gong	Tide-Wave Dynamics in a Mixed Sand-Gravel Inlet System at Deben Estuary
18	Christopher A. Unsworth	Tidal Asymmetries in Hydrodynamics Do Not Necessarily Control Sediment Transport in Hyper-Tidal Sand Flats.
19	Tim Poate	Dune Notch Dynamics: Morphology and Aeolian Response
20	Robert Jones	Monitoring Morphological Variability of Gravel Barriers Using 2D LIDAR
21	Dominique Townsend	Gravel Outwash Breach on the UK's Longest Beach
22	Timothy Scott	A New Assessment of Coastal Sediment Cells in North Cornwall
23	Dr. Sabana Parvin	Mathematical Modelling and Numerical Simulation of Air Pressure Dynamics and Water Level Response in a Pneumatic Tsunami Generator
24	Mohammad Tabasi	Experimental and Numerical Investigation of Scour and Settlement Around Breakwaters Under Storm and Tsunami Wave Conditions
25	Niki Soleimani Amiri	Experiments on Tsunami-Induced Scour at Circular and Rectangular Onshore Structures
26	Craig Grosscurth	Engineering Support for Oceanographic Research: Design, Fabrication, and Field Operations