



5TH AUSTRALASIAN

YOUNG COASTAL SCIENTISTS & ENGINEERS CONFERENCE

2024

GOLD COAST | ONLINE | LOCAL HUBS (AUS & NZ)

Central Hub: Greenmount SLSC, Coolangatta



Wednesday 16 October

Welcome to Country

Conference Opening

09:30-11:30
AEST

Platinum Sponsor Opening Address by NSW Department of Climate Change, Energy, Environment and Water

Keynote by Tiahni Adamson

Tell your Story, Walking in Two-Worlds

Break

Express Course 1 - Aaron Salyer

12:30-13:30
AEST

Leveraging Pioneering Techniques to Build Coastal Resilience in California

Session sponsored by Alluvium Consulting

Break

Lightning Presentations 1:

Coastal hazards, climate change impacts and adaptation

Session sponsored by CoastAdapt

Session introduction and silver sponsor address

14:15-15:45
AEST

Dominique Djaidiguna -BMT

Developing Coastal Adaptation Pathways: Utilisation, Case Studies, and Strategic Approaches in Victoria

Emma Reeve - Rhelm

Coastal Zone Emergency Action Subplan (CZEAS) for Collaroy-Narrabeen: Enhancing Coastal Resilience through Strategic Planning

Luke Rocavert - Rhelm

Evolving Risk Profiles: Backwater and Overbank Tidal Inundation in Urban Estuaries

Note: All times are Australian Eastern Standard Time (AEST; GMT +10). Local hub activities vary between different locations. Not all local hubs will host all activities.



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Wednesday 16 October cont.

Lightning Presentations 1:

Coastal hazards, climate change impacts and adaptation

Session sponsored by CoastAdapt

Hayden Forrest - Mornington Peninsula Shire

Our Coast Our Future - Coastal Adaptation Planning on the Mornington Peninsula

Ben Hague - Bureau of Meteorology

Eastern Australian estuaries will transition to tidal flood regimes in coming decades

Rui Li - University of Melbourne

Analysis of the 20-Year Variability of Ocean Wave Hazards in the Northwest Pacific

Thalles Araújo - University of Western Australia

Erosion in reef-fronted beaches at seasonal and interannual time scales

Emily Lazarus - James Cook University

Systematic classification of cay morphodynamic sensitivity within the Great Barrier Reef, Australia

Colleen Fish - University of Newcastle

Wave overwash hazards and risk management on coastal rock platforms

Rafael Barros - City of Gold Coast

Surf Break Vulnerability Score Framework - Case of Burleigh Heads

Alysha Johnson - University of Wollongong

The variability of coastal geomorphology around an eroding volcanic island - Norfolk Island

Jordan Vickers - Tweed Shire Council

Planning for change: Sea Level Rise and the Coastal Vulnerability Area

Thomas Wright - Royal HaskoningDHV

*Shielding the Shore: A Rapid Response to Emergency Erosion at Wamberal Beach****Session conclusion***14:15-15:45
AEST

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Thursday 17 October

Lightning Presentations 2:

Community engagement, coastal monitoring, management and policy

Session sponsored by University of Newcastle

Session introduction

Stephanie Doumtsis – Alluvium

A recipe for success: Integrating science and community perspectives into coastal management

Jessica Gartrell – Royal HaskoningDHV

Gold Coast Sand: The Next 50 years

Isaac Goessling – University of Sunshine Coast

Optimising Coastal Monitoring: Developing Protocols for Bathymetric Data Collection in High Energy Nearshore Environments

Beau Javernig – City of Gold Coast

Remote sensing applications in amenity assessments on Gold Coast beaches

09:30–11:15
AEST

Courtney Smith – Water Technology

Coastal Hazards in Remote Locations

Michael Thomson – Alluvium

Coastal monitoring of East Gippsland estuary opening and closure trends using InletTracker

Zoe Zollinger – Royal HaskoningDHV

Developing a Methodology for Visual Offsets in the GBRWHA

Lorena Garcia Woortmann – Sand Talk

Sand Talk – Science for Waterpeople: Creating community and educational opportunities through social media

Ido Fridberg – James Cook University

Reef developmental diversity on the inner shelf of the Great Barrier Reef

Nick Naderi – Department of Environment, Science and Innovation

Automating Water Level Detection with Computer Vision for Coastal Monitoring

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09:30–11:15
AEST

Braiya White – Shoalhaven City Council

Coastal Monitoring Approaches in the Shoalhaven for Adaptive Coastal Management

Runjie Yuan – University of Melbourne

The exposure and preservation of dinosaur footprint tracks on intertidal shore platforms

Break

Panel Discussion

Braiding First Nations Knowledge and Coastal Science and Engineering

12:00–13:30
AEST

Mitchell Gibbs (University of Sydney)

Natalie Friday (MinggaMingga Land and Sea Rangers/ Palm Island Aboriginal Shire Council),

Adam Nye (Batemans Bay Local Aboriginal Land Council)

Marika Seden (Alluvium Consulting),

Break

Lightning Presentations 3:

Nature based solutions and restoration + Coastal infrastructure and engineering

Session sponsored by DHI Group

14:15–15:45
AEST

Session introduction and silver sponsor address

Winton Huck – Worley Consulting

Analysis of Beach Erosion and Recovery Methods at Shoalhaven, NSW

Michael Rosenthal – Rhelm

Applying the DST for Bank Erosion Management in the Lower Shoalhaven River Estuary

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Lightning Presentations 3:

Nature based solutions and restoration + Coastal infrastructure and engineering

Session sponsored by DHI Group

Scott Murray - Tonkin + Taylor

Ōpōtiki Harbour Development New Zealand's Newest Harbour

Holly Blakely - Tonkin + Taylor

Nature's Defence: Harnessing Saltmarsh for Innovative Coastal Protection

Ryan Cope - Shoalhaven City Council

Mapping Shoalhaven's Threatened Ecological Communities within the Coastal and Estuarine Environment

Will Souter - Magryn & Associates

Wave Overtopping and the Design of Coastal Defence Structures

Yanyan Zhang - Royal HaskoningDHV

Overcoming Revetment Repair Challenges During Circular Quay Renewal

Kyle Jeffery-Prestwich - JB Pacific & Griffith University

Investigation of rock bags in the coastal environment

Stephanie Harrington - University of Western Australia

Field Observations of Wave Transmission Over a Submerged Artificial Reef

Jiajun Huang - University of Western Australia

Wave transmission across impermeable and porous modular artificial reefs

Michael Peterson - University of Western Australia

Enhancing Coastal Resilience with Brushwood Walls: Modelling Wave Dynamics and Structural Design

Oliver Nickson - Department of Transport, Perth

Beach Nourishment to Reduce the Breaching Risk of a Sand Spit

Session conclusion

14:15-15:45
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Friday 18 October

Lightning Presentations 4:

Metocean + Coastal and estuarine hydrodynamics + Blue Carbon

Session sponsored by UNSW Water Research Laboratory

Session introduction and silver sponsor address

Anne Fleur Mineke van Leeuwen - University of Auckland

Linking Turbidity and Nutrient Cycling in the Kaipara Harbour, a Mesotidal Estuary

Paul Lee - JB Pacific

Water level variations in coastal creeks (ICOLLs)

Ye Htet Oo - Water Technology

Estimating natural beach recovery between a storm group

Verity Taylor - Tonkin & Taylor

Enhancing Coastal Infrastructure Safety with Trigger Action Response Plans (TARPS)

Madeline Goddard - Terrestrial Ecosystem Research Network

Monitoring vertical elevation trends in tidal wetlands around Australia

Neda Mardani - Department of Environment, Science and Innovation QLD

Tsunami Inundation Modelling for the city of Gold Coast

Hayden Nichols - Royal HaskoningDHV

Field Data Collection Methods to Support Estuary Modelling

Ahmed Shama - UNSW

Numerical Investigation of Regular Waves and Ice Floes on Flow Over a Cylinder

Brooke Conroy - University of Wollongong

Carbonate mangrove above-ground biomass is linked to tidal position and forest age

Cristina Viola - NSW Department of Climate Change, Energy, the Environment and Water

Catchment sediment inputs to estuary wetlands under climate change

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Metocean + Coastal and estuarine hydrodynamics + Blue Carbon

Session sponsored by UNSW Water Research Laboratory

Robbi Bishop-Taylor - Geoscience Australia

Australia's Next Top Model: An ensemble approach for optimising coastal tide predictions using satellite altimetry and optical remote sensing

09:30-11:15
AEST

Jin Liu - University of Melbourne

Increasing wave power due to global climate change and intensification of Antarctic Oscillation

Abdulla Alson Athif - University of Western Australia

Estimating spatially variable seafloor characteristics using Approximate Bayesian Computation

Session Conclusion

Break

Express Course 2 - Dr Jan McDonald

Australia's approach to coastal adaptation planning - understanding the legal landscape

Session sponsored by Geoscience Australia

11:45-13:30
AEST

Platinum Sponsor Closing Address by NSW Department of Climate Change, Energy, Environment and Water

Lightning Presentations People Choice Awards

Conference Closing

Central Hub Field Trip

14:00-17:00
AEST

Dr Tom Murray - Griffith University

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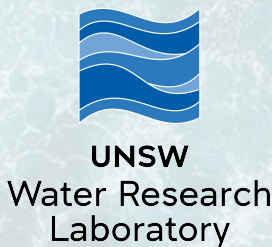
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