

AUSTRALASIAN COASTS & PORTS 2021

11 – 13 April 2022
Te Pae, Christchurch

TE ORANGA TAKUTAI
ADAPT AND THRIVE

Christchurch

DELIVERED VIRTUALLY

www.coastsandports2021.co.nz



POCKET PROGRAMME

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WELCOME

Message from the Conference Organising Committee

E rau rangatira mā, tēnā koutou. The Local Organising Committee, under the auspices of the New Zealand Coastal Society, Engineers Australia's National Committee on Coastal and Ocean Engineering, and PIANC Australia and New Zealand, is pleased to welcome you to Australasian Coasts & Ports 2021; an amalgamation of the 29th New Zealand Coastal Society Conference; the 25th Australasian Coastal & Ocean Engineering Conference; and the 18th Australasian Port and Harbour Conference.

The Australasian Coasts & Ports Conference series is the pre-eminent forum in the Australasian region for professionals to meet and discuss issues extending across all disciplines related to coasts and ports. Our Conference theme "Te ora ngā takutai – Adapt and Thrive" recognises the dynamic coastal environment that we live in and the need for coastal communities to be resilient and adaptable to thrive. Ōtautahi Christchurch and the wider Canterbury region are outstanding examples of this, with major seismic events having caused rapid and significant changes to the coastal environment and substantial damage to public and private assets and infrastructure. These events provide an ideal laboratory

to examine the ongoing physical and built environment adjustments, and the possibilities for building stronger, more resilient and vibrant communities.

Australasian Coasts & Ports 2021 brings together (virtually) engineers, scientists and planners; academics, practitioners and those in the construction industry to focus on the present and future challenges of adapting coastal communities to thrive in dynamic coastal environments. The conference will, in particular, focus on challenges and solutions for port resilience, impacts and responses to catastrophic events, as well as to explore how local and indigenous values can be effectively represented in coastal management.

Australasian Coasts & Ports 2021 has changed to a virtual format, but will still will feature engaging keynote speakers, incorporate five concurrent streams for over 140 technical presentations, trade exhibition, virtual field trips and the opportunity to network with colleagues.

We look forward to welcoming you there.

Ngā manaakitanga.

Deirdre Hart and Tom Shand
Conference Co-chairs

VIRTUAL PLATFORM

All virtual attendees will receive a registration link and a unique login via email one week prior to the Conference. Instructions and tips for using the virtual platform will also be included in this email. To familiarise yourself with the virtual platform ahead of the conference, we recommend you take a look at the OnAIR Platform Video:

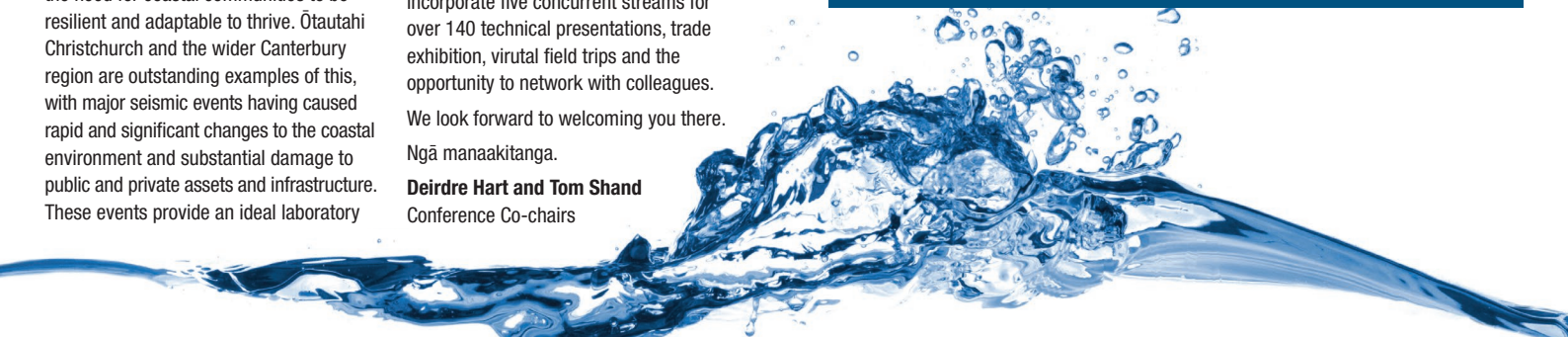
www.coastsandports2021.co.nz/programme/

PROGRAMME

The virtual conference will commence on Monday, 11 April 2022 and will conclude on Wednesday 13 April 2022.

The programme will include:

- Virtual trade exhibition
- Three-day technical programme
- NextGen Lightning Talk session
- PIANC Young Professionals Panel Event (Sponsored by WSP New Zealand)
- Women in Geoscience and Coastal Engineering Panel Event (sponsored by UNSW WRL)
- Networking opportunities with other delegates, speakers and industry
- Virtual activities within the conference platform



MONDAY, RĀHINA 11 APRIL 2022

Time (AWST)	Time (AEST)	Time (NZT)	MONDAY		
6:00am - 6:30am	8:00am - 8:30am	10:00am - 10:30am	Powwhiri and Welcome from Mayor/Chairs		
6:30am - 7:10am	8:30am - 9:10am	10:30am - 11:10am	Keynote: Mangroves, Sea Level Rise and Coastal Protection Prof. Karin Bryan	Sponsored by	
			1A Climate Change Coastal Adaptation Panel	1B Working With Nature & Indigenous Knowledges	1C Tides
7:10am - 7:30am	9:10am - 9:30am	11:10am - 11:30am	Sponsored by 	Bringing the awa back Stephanie Brown, WSP NZ Ltd	Coastal lake tidal range amplifies sea-level threat in Lake Macquarie, Australia Karen Palmer, University of Tasmania
7:30am - 7:50am	9:30am - 9:50am	11:30am - 11:50am		Management and Protection of Indigenous and Cultural Assets on the Coast in NSW Australia James Carley, UNSW Water Research Laboratory	Understanding tides and predicting tidal heights in an extreme environment setting: Jang Bogo Antarctic Research Station in Ross Sea, Antarctica Deirdre Hart, University of Canterbury
7:50am - 8:10am	9:50am - 10:10am	11:50am - 12:10pm		Kamay Ferry Wharves: Connecting with Country David Dack, Arup	Mooloolaba breakwater: How site constraints have shaped the design Kyra Stemm, Kellogg Brown & Root Pty Ltd
8:10am - 8:30am	10:10am - 10:30am	12:10pm - 12:30pm		Designing for Nature: Incorporating Science into Construction for Successful Project Delivery Crystal Lenky, Lyttelton Port Company	Real time prediction of tidal and non-tidal flows to improve the navigational safety at the entrance to the Tory Channel Peter McComb, Oceanum Ltd
8:30am - 9:10am	10:30am - 11:10am	12:30pm - 1:10pm	Break		
				1D Structure Design	1E Vessel Management
				Wave-structure-soil interaction for Te Wānanga, Auckland's new waterfront Andrew Brown, Tonkin + Taylor	Operational dynamic mooring analysis in the cloud Daniel Bruce, HR Wallingford
				Influence of Water Level on Wave Uplift Loading for a Cantilevered Walkway above a Vertical Seawall Ian Coghlan, UNSW Water Research Laboratory	Mooring Line Failures: Considerations for the Installation of Barrier Protection Luke Campbell, WGA WA PTY LTD
				Mooloolaba breakwater: How site constraints have shaped the design Kyra Stemm, Kellogg Brown & Root Pty Ltd	The Effect of Fender Energy Dissipation on Moored Ship Wave-Induced Motions Tim Gourlay, Perth Hydro
				Reconstruction of the Maroochydore Groynes Simon Restall, Geosynthetic Resources International	Dynamic assessment of safety in manoeuvring through constricted navigational channels using an online operational system Reza Kazerouni, Seaport OPX Powered by DHI

Time (AWST)	Time (AEST)	Time (NZT)	MONDAY				
			2A Coastal Earthquake Resilience and Recovery	2B Working With Nature Sponsored by 	2C Beach Observations & Change	2D Big Picture Design & Monitoring	2E Marine Environments & Energy
9:10am - 9:30am	11:10am - 11:30am	1:10pm - 1:30pm	Addressing Geotechnical Complexity at Lyttelton Port's Cruise Berth Richard Young, Beca Ltd	Working with nature – a practical approach Nathan Burmeister, FSC Range	80 years of shoreline change in Northland, New Zealand Mark Dickson, The University of Auckland, School of Environment	Gold Coast Sand Bypass System Jetty Deck Upgrade Andrew Turnbull-Miller, Arup	LNG-to-Power Marine Infrastructure Ramkrishna Darji, BMT Singapore Pte Ltd
9:30am - 9:50am	11:30am - 11:50am	1:30pm - 1:50pm	The use of Trigger Action Response Plans to mitigate wave overtopping hazard on coastal infrastructure Tom Shand, Tonkin + Taylor	A new approach to increase the resilience of coastal structures Andrew Pomeroy, The University of Melbourne FSC Range	The Importance of Knowing Your Erosion Alison Clarke, 4sight Consulting Ltd	A Century of Bathymetry Changes at Stockton Beach and Newcastle Harbour Ian Taggart, University of Newcastle	Predicting Nearshore Effects of Wave Farms: Phase-averaged vs Phase resolving models Daniel Raj David, The University of Western Australia
9:50am - 10:10am	11:50am - 12:10pm	1:50pm - 2:10pm	Physical modelling of complex overtopping flows at Ōhau Point, Kaikōura and development of mitigation measures Francois Flocard, WRL UNSW Sydney	Manning River Entrance – a problem in search of a solution Angus Gordon OAM, Coastal Zone Management and Planning	Morphodynamic variability assessment on a high-energy beach to develop trigger levels for coastal management intervention Thomas Murray, Coastal and Marine Research Centre, Cities Research Institute, Griffith University	Operational Beach Erosion Early Warning System Simone De Kleermaeker, Deltares	Wind Forecast Skill for Western Port Victoria Gabriel Tooker, Advisian Pty Ltd
10:10am - 10:30am	12:10pm - 12:30pm	2:10pm - 2:30pm	Improved performance of sheet piles under earthquake loading by performing FEM dynamic calculation Helena Pera Serra, SENER Engineering	Performance of Engineered Wave Attenuating Reef Structures Justin Geldard, The University of Western Australia	Experimental observation on wave and profile changes in a sandbar-lagoon system by submerged vegetation on the sandbar slope Cong Xin, Tongji University	Connecting Shell Cove Boat Harbour to Coastal Waters - Strategy and Implementation Greg Britton, Haskoning Australia Pty Ltd, a company of Royal HaskoningDHV	Establishing Design Criteria for a Large offshore Wind Farm in Vietnam Dougal Greer, eCoast
10:30am - 11:00am	12:30pm - 1:00pm	2:30pm - 3:00pm	Break				

Time (AWST)	Time (AEST)	Time (NZT)	MONDAY				
			3A Coastal Earthquake Resilience and Recovery	3B Working With Nature	3C Surf Science, Engineering & Management Sponsored by 	3D Seawalls & Scour Sponsored by  Manly Hydraulics Laboratory	3E Wave Run-Up
11:00am - 11:20am	1:00pm - 1:20pm	3:00pm - 3:20pm	Moving mountains to reconnect communities; lessons from the Kaikoura earthquake transport infrastructure recovery Manea Sweeney, Tonkin + Taylor	When sharing data is about caring for our Moana Rachel Gabara, Toitū Te Whenua, Land Information New Zealand	Measurements of surfer velocities and their relationship to breaking wave height and peel angle Dirk Ackerman, The University of Western Australia	6 Wharf Revetment – Port of Napier Kane Satterthwaite, Beca Ltd. & Daniel Chisnall, HEB Construction	Wave Setup and Run-up on Natural Beaches in NSW Rosanne Hart, The University of Newcastle
11:20am - 11:40am	1:20pm - 1:40pm	3:20pm - 3:40pm		Co-design of an innovative urban shellfish restoration project Marcus Cameron & Susan Jackson, Tonkin + Taylor	Machine-learned Peel Angles for Surfing Wave Quality Monitoring Edward Atkin, eCoast	Ōpōtiki Harbour Development Project - Design of New Zealand's first harbour opening in over 100 years Jonathan Clarke, Tonkin + Taylor	Experimental study on the role of second-order wave generation and active absorption on overtopping and damage of rubble mound breakwaters George Ellwood, The University of Western Australia
11:40am - 12:00pm	1:40pm - 2:00pm	3:40pm - 4:00pm	Earthquake legacy coastal protection replacement strategy: Southshore, Christchurch, New Zealand Kate Macdonald, Jacobs	Marine habitat enhancement and fauna management at Cobham Drive, Wellington Susan Jackson, Tonkin + Taylor	Systematic Optimization of Surf Pool Wave Quality using Computational Fluid Dynamics Simon Mortensen, Seaport OPX Powered by DHI	Improving our understanding of ship side thruster forces on existing armoured berths through physical modelling Mathieu Deiber, UNSW	Variability in measured wave runup along irregular coastlines using observations in Albany, Western Australia Carly Portch, Oceans Graduate School, The University of Western Australia
12:00pm - 12:20pm	2:00pm - 2:20pm	4:00pm - 4:20pm	Supporting Aotearoa's Coastal Resilience Stuart Caie, Toitū Te Whenua, Land Information New Zealand	Development and Application of a Modelling Framework to Support Assessment of Diverse Environmental Impacts in a Coastal Marine Environment Louise Bruce, BMT	Detailed Assessment of Surf Amenity over Reef and Sand Bottom Surf Breaks using Wave Peel Tracking Michael Thompson, The University of Queensland	Port of Brisbane Future Port Expansion Seawall Upgrade Astrid Stuer, Water Technology Pty Ltd	Highly-resolved simulations of surf zone hydrodynamics driven by irregular waves using Smoothed Particle Hydrodynamics Ryan Lowe, The University of Western Australia
12:20pm - 12:40pm	2:20pm - 2:40pm	4:20pm - 4:40pm	Natural disaster recovery as resilience-building opportunity: lessons from an uplifted coast Shane Orchard, University of Canterbury	Ecohydraulics of surrogate salt marshes for coastal protection: wave-vegetation-interaction and related hydrodynamics on vegetated foreshores at sea dikes Kara Keimer, Technische Universität Braunschweig	The Application of Surf Science and Coastal Oceanography to Develop Win-Win Scenarios for Sustainable Development and Management of Marine Resources Shaw Mead, eCoast Marine Consulting and Research	Basin scale modelling as a design tool Alexander (Lex) Nielsen, Worley	Wave run-up in the lee of submerged breakwaters Renan Fonseca Da Silva, The University of Western Australia

Time (AWST)	Time (AEST)	Time (NZT)	MONDAY			
12:40pm - 1:00pm	2:40pm - 3:00pm	4:40pm - 5:00pm	Break			
1:00pm - 2:00pm	3:00pm - 4:00pm	5:00pm - 6:00pm	WICGE Panel Event Chaired by Associate Prof. Kristen Splinter Organised by Dr Shari Gallop	Sponsored by	 	
2:00pm - 3:00pm	4:00pm - 5:00pm	6:00pm - 7:00pm	Surf Science and Engineering Workshop			

TUESDAY, RĀTŪ 12 APRIL 2022

Time (AWST)	Time (AEST)	Time (NZT)	TUESDAY				
6:00am - 6:10am	8:00am - 8:10am	10:00am - 10:10am	Welcome				
			4A Future Proofing Coastal and Port Environments Sponsored by FSC RANGE	4B Indigenous Knowledge Panel	4C Beach Nourishment & Sediment Transport	4D Asset Management and Resilience Sponsored by DML DISCOVERY MARINE LTD	4E Complex Waves & Modelling
6:10am - 6:30am	8:10am - 8:30am	10:10am - 10:30am	Shaping a state's coastline for the next generation Frank Marra, DevelopmentWA		Impacts of Climate Change on Sediment Transport Rates Around Burleigh Heads Guilherme Vieira Da Silva, Coastal and Marine Research Centre, Griffith University	Asset Lifecycle Approach to Port Infrastructure Sustainability: A Case Study Reyhaneh Hesami, Department of Transport, Victoria & Nicola Daaboul, Brightly (formerly Assetic)	Wave Generation Zones off the East Australian Coast Ana Paula Da Silva, Griffith University
6:30am - 6:50am	8:30am - 8:50am	10:30am - 10:50am	Adaptive infrastructure in coastal lowlands: a new paradigm required Rob Bell, Bell Adapt Ltd		Estimating the Influence of Long Waves on Sediment Transport in Coffs Harbour Utilising Physical, Numerical Modelling, and Field Data Indra Jayewardene, Manly Hydraulics Laboratory	Marine Asset Management at Lyttelton Port Colin Frewen & Tristan Williams, WSP NZ Ltd	The impact of sea level rise on waves and surge patterns in Northern Territory, Australia Gael Arnaud, MetOcean Solutions

					TUESDAY		
Time (AWST)	Time (AEST)	Time (NZT)					
6:50am - 7:10am	8:50am - 9:10am	10:50am - 11:10am	The need for infrastructure adaptation at the coast Sian John , Royal HaskoningDHV & Amon Martin , Thames Coromandel District Council		Port Beach Sand Nourishment: 130 Years of Coastal Adaptation and Counting Jake Costin , MP Rogers and Associates	Using Lessons Learned from Past Earthquake Performance to Develop Real World Resilience Strategies for Ports and Port Structures Jan Stanway , WSP NZ Ltd	Complex wave propagation patterns near shipping channels - Phase-averaged or phase-resolving wave model? Simon Weppe , Metocean Solutions
7:10am - 7:30am	9:10am - 9:30am	11:10am - 11:30am	Dealing with future coastal erosion impacts on river mouth and flood control structures: Clutha River, Otago, New Zealand Derek Todd , Jacobs New Zealand Ltd		A Summary of the Gold Coast Beach Nourishment Project: Implementation and Effectiveness Zoe Elliott , City of Gold Coast	CentrePort Wellington: Resilient recover – risk guided regeneration Wayne Juno , Holmes Consulting	Modelling and measurement of low-frequency surge motion associated with extreme storm conditions in the Port of Cape Town Luther Terblanche , University of Stellenbosch
7:30am - 7:50am	9:30am - 9:50am	11:30am - 11:50am	Lyttelton Cruise Berth – the first dedicated facility for ultra large cruise vessels in New Zealand James Cowderoy , Beca Pty Ltd		Offshore beach nourishment works along the Bellarine Coast Gildas Colleter , Water Technology	The Operation and Management of Jack up Barges in New Zealand Lee Griffiths , Brian Perry Civil	Is attack the best defence? An exploration into the best approach of seawall interventions for efficient coastal protection Catriona Thompson , University of Auckland
7:50am - 8:30am	9:50am - 10:30am	11:50am - 12:30pm	Break				
8:30am - 9:10am	10:30am - 11:10am	12:30pm - 1:10pm	Keynote: Supply Chain Resilience & Climate Change Adaptation Planning for Ports Marika Calfas , NSW Ports		Sponsored by		

Time (AWST)	Time (AEST)	Time (NZT)	TUESDAY				
			5A Flooding & Other Coastal Hazards	5B Tsunamis	5C Waves & Shoreline Analysis for Management	5D Port Facility Design	5E Structure Optimisaiton
9:10am - 9:30am	11:10am - 11:30am	1:10pm - 1:30pm	The contribution of forerunner, meteotsunami, seiches and coastally trapped waves to storm surges Charitha Pattiaratchi , The University of Western Australia	Tsunami Hazard Assessment for Tongatapu, Tonga Jose Borrero , eCoast Marine Consulting and Research	Development of the SONDAP Toolbox Demont Hansen , Department of Transport Maritime	Thevenard Jetty Upgrade: Reconstructing an Operating Deteriorated Structure David McKay , WGASA Pty Ltd Paul Constance , Flinders Ports	Combined Numerical and Physical Modelling of Waves for Ōpōtiki Harbour Entrance Design Eddie Beetham , Tonkin + Taylor
9:30am - 9:50am	11:30am - 11:50am	1:30pm - 1:50pm	Effect of Storm Tide and Sea Level Rise on Coastal Inundation: A New Zealand Multi-Hazard Case Study Mazhar Ali , Jacobs New Zealand Ltd	Impact of modelled tsunamigenesis on inundation and risk exposure: observations of the 2009 tsunami in Samoa Shaun Williams , NIWA Taihoro Nukurangi	Extraction of ship wake information from wave buoy records John Ryan , Queensland Department of Environment and Science	Slipping and Deconstruction of the HMAS Success Monique Draycott , WGASA Pty Ltd	Optimisation of a falling toe for river mouth scour protection – results from a physical model study Colin Whittaker , The University of Auckland
9:50am - 10:10am	11:50am - 12:10pm	1:50pm - 2:10pm	Bay of Plenty coastal flood modelling and mapping Christo Rautenbach , NIWA	The contribution of submarine landslides to the 2016 Kaikōura tsunami Emily Lane , NIWA Taihoro Nukurangi	Improvements to mapping coastal erosion susceptibility Patrick Knook , Tonkin + Taylor	Infrastructure for Rottnest Island: Refurbishing the Fuel Jetty Nicholas Deussen , WGA WA Pty Ltd	Methods for the Structural Analysis of Locally Corroded Steel Circular Hollow Sections Jordan Butler , Wallbridge Gilbert Aztec
10:10am - 10:30am	12:10pm - 12:30pm	2:10pm - 2:30pm	Joint Probabilities of Pluvial and Tidal Flooding In Christchurch Tim Preston , GHD Ltd Tom Parsons , Storm Environmental	Preliminary modelling of a potentially tsunamigenic submarine landslide identified along the west coast of New Zealand's north island Kendall Mollison , The University of Newcastle	Determining an objective coastal land-sea boundary zone for jurisdictional clarity Michael Allis , BECA	Esperance Jetty – Building From The Shore Imran Lambay , Maritime Constructions	Increasing coastal concrete-life with hydrogel technology Doug Hamlin , Markham
10:30am - 11:00am	12:30pm - 1:00pm	2:30pm - 3:00pm	Break				

Time (AWST)	Time (AEST)	Time (NZT)	TUESDAY				
			6A Coastal Hazards Adaptation Planning in Practice	6B Lightning Session Talks	6C Coastal Process Observations	6D Virtual Fieldtrips Premiere Showing	6E Port & Coastal Technology
11:00am - 11:20am	1:00pm - 1:20pm	3:00pm - 3:20pm	Research Priorities and Emerging Issues in Coastal Geoscience and Engineering in Australia Hannah Power, University of Newcastle	Tidal attenuation and salinity regimes in a highly modified shallow estuary: Te Awa o Ngātoroirangi (the Maketū Estuary) Mojgan Razzaghi, University of Waikato Impacts of Pacific and Southern Ocean Climate Modes on New South Wales Tidal Residuals, Australia Cristina Viola, University of Newcastle	Forecasting Long Period Wave Events using 3D wave models and Machine Learning for Dynamic Mooring Analysis Jacob Suhr, Seaportopx		Smart cameras for coastal monitoring Chris Drummond, UNSW Water Research Laboratory
11:20am - 11:40pm	1:20pm - 1:40pm	3:20pm - 3:40pm			Development of Pressure Transducer Correction Factors Using Concurrent AWAC Measurements Darshani Thotagamuwage, Department of Transport Western Australia		Global Navigation Satellite Systems (GNSS) technology used to construct coastal structures Gary Chisholm, Trimble
11:40am - 12:00pm	1:40pm - 2:00pm	3:40pm - 4:00pm	First steps in the climate adaptation journey Tom Simons-Smith, Dunedin City Council	The exposure and adaptation of coastal infrastructure to wave overtopping in New Zealand Holly Blakely, Tonkin + Taylor Coastal structure stability and failure mechanisms in New Zealand Madeline Witney, The University of Auckland Submarine explosive volcanism – numerical modelling of tsunami hazard Matthew Hayward, The University of Auckland Coastal marae and urupā: What about sea level rise? Akuhata Bailey-Winiata, The University of Waikato On the projected wave climate of New Zealand João Claudio Mussi De Albuquerque, MetOcean Solutions	Assessing The Use of Satellite Derived Bathymetry In Estuarine Storm Surge Models – Study Case: Tauranga Harbour Wagner Costa, University of Waikato		Dynamic Motions of Piled Floating Pontoon in the Field and the Influence on Postural Stability Elizabeth (Libby) Freeman, Advisian Pty Ltd
12:00pm - 12:20pm	2:00pm - 2:20pm	4:00pm - 4:20pm	Adaptive tools for decisions on compounding climate change impacts on water infrastructure Scott Stephens, NIWA	First HF Radar observations of surface currents off North West Cape, Australia Yasha Hetzel, The University of Western Australia	Delivering digitally enabled and autonomy-enabled smart port ecosystems using the new IHO S-100 framework model Phil Thompson, BMT		
12:20pm - 12:40pm	2:20pm - 2:40pm	4:20pm - 4:40pm	Probabilistic Cost-Benefit Analysis to Inform Coastal Management: A Mollmook Case Study Christopher Beadle, Water Technology	Pressure based water level measurements – Getting it right Stefan Stimson, RBR Ltd	Utilising Time Lapse and Drone Imagery to Audit Construction and Certification of Works for a Coastal Revetment at Port Kembla Eduardo Pombo Lavin, Manly Hydraulics Laboratory		

Time (AWST)	Time (AEST)	Time (NZT)	TUESDAY			
12:40pm - 1:00pm	2:40pm - 3:00pm	4:40pm - 5:00pm	Break			
1:00pm - 2:00pm	3:00pm - 4:00pm	5:00pm - 6:00pm	PIANC Young Professionals Panel Event		Sponsored by	

WEDNESDAY, RĀAPA 13 APRIL 2022

Time (AWST)			Time (AEST)			Time (NZT)			WEDNESDAY		
6:00am - 6:10am			8:00am - 8:10am			10:00am - 10:10am			Welcome		
			7A Port & Coastal Planning			7B Tsunamis			7C Special Session on Contemporary Coastal Challenges		
									7D Dredging Design Sponsored by  VISION ENVIRONMENT A Trinity Consultants Company		
									7E Emerging Technologies in Coastal Science and Engineering: Dr Mitchell Harley Sponsored by  Denso CORROSION PREVENTION		
6:10am - 6:30am			8:10am - 8:30am			10:10am - 10:30am			Who pays for climate change adaptation? Investigating RCP, SSP and cost apportionment impacts using a simple multi-hazard model Andrew Allison, NIWA Taihoro Nukurangi		
									(see electronic programme for invited speaker and topic details)		
									Capital Dredging in a World Heritage Area – Managing the Challenges Lisa Mckinnon, BMT		
									Emerging Technologies in Coastal Science and Engineering Mitchell Harley, Water Research Laboratory, School of UNSW		
6:30am - 6:50am			8:30am - 8:50am			10:30am - 10:50am			Ports Insurance Valuations: Learnings from Recent Earthquakes Greg McMullan, WSP NZ Ltd		
									Review of Tsunami Impact on Bridges Seyedreza Shafiei, Beca		
									Clinton Vessel Interaction Project Dredge Plume Monitoring and Fine Sediment Assessment Paul Guard, BMT		

					WEDNESDAY		
Time (AWST)	Time (AEST)	Time (NZT)					
6:50am - 7:10am	8:50am - 9:10am	10:50am - 11:10am	Generative Design to Facilitate Optioneering in Coastal Resilience Projects Farzam Farzadi, Beca Ltd	Assessing the Tsunami Hazard Posed by Submarine Landslides in the Perth Canyon, Australia Elise Buller, University of Newcastle		Validating a Novel Design Approach for a Confined Dredge Material Placement Site Zachariah Couper, BMT	Mapping ebb tidal delta dynamics using Planet cubesat imagery within the Google Earth Engine Murray Ford, University of Auckland
7:10am - 7:30am	9:10am - 9:30am	11:10am - 11:30am	Towards a Framework for Sustainable Port Site Selection Michel Oosterwegel, Delft University of Technology	Laboratory experiments on tsunamigenic discrete subaqueous volcanic eruptions Yaxiong Shen, University of Auckland		The Application of High-resolution PlanetScope Dove Satellite Imagery for Near-daily Shoreline Monitoring Yarran Doherty, Water Research Laboratory - School of Civil and Environmental Engineering, UNSW Sydney	
7:30am - 7:50am	9:30am - 9:50am	11:30am - 11:50am	Hydrogen export terminal site selection considerations Jim Hirst, WSP			Identifying coastal land cover types using a hybrid approach of optical and SAR satellite data in the Auckland region Ben Collings, University of Auckland	
7:50am - 8:30am	9:50am - 10:30am	11:50am - 12:30pm	Break				
8:30am - 9:10am	10:30am - 11:10am	12:30pm - 1:10pm	Keynote: 2011 Tohoku Earthquake and Tsunami, the Aftermath and the Recovery Process Prof. Tomoya Shibayama, Waseda University			Sponsored by	

Time (AWST)	Time (AEST)	Time (NZT)	WEDNESDAY				
			8A Port & Coastal Planning	8B Hunga Tonga - Hunga Ha-Apai Special Session	8C Coastal and Ecological Processes	8D Vessel Safety and Navigation Sponsored by 	8E Emerging Technologies in Coastal Science and Engineering Sponsored by 
9:10am - 9:30am	11:10am - 11:30am	1:10pm - 1:30pm	Role of Technology in Achieving the United Nation's Sustainable Development Goals Brendan Curtis , OMC International		Morphology of Reef Top Islands and Impacts of Climate Change Stuart Bettington , Royal HaskoningDHV	Preparing NZ for e-Navigation Verena Bosselmann , Toitū Te Whenua, Land Information New Zealand	BG-Flood: A GPU adaptive, open-source, general inundation hazard model Cyprien Bosserelle , NIWA
9:30am - 9:50am	11:30am - 11:50am	1:30pm - 1:50pm	Improving port scheduling efficiency at Port Hedland Samuel Frick , OMC International		Influence of Seasonality and ENSO on Hydrodynamic Drivers for a Fringing Coral Reef and Lagoon System Matt Blacka , Water Research Laboratory, UNSW Sydney	Proposed Navigation System Upgrade at Port Kembla, NSW Doug Treloar , Cardno, Now Stantec	StoneID – Application of deep-learning methods to estimate armour stone gradings on coastal structures Iman Jizan , Baird Australia
9:50am - 10:10am	11:50am - 12:10pm	1:50pm - 2:10pm	Australian Marina Industry - Lessons Learned - 1971 to 2021 Mike Thackray , Yachtmarinas Australia Pty Ltd		Site assessment of Douglas Shoal ship grounding in the Great Barrier Reef Bill Boylson , Advisian & Darren Cameron , Great Barrier Reef Marine Park Authority	Vessel navigation influencing road and rail bridge design Ben Spalding , Hr Wallingford Pty Ltd	Vessel Tracking Automation – The Dalrymple Bay Use Case Jochen Franke , Frontier Automation
10:10am - 10:30am	12:30pm - 12:30pm	2:10pm - 2:30pm	Recreational Boating and Marine Infrastructure to Meet the Future Needs of Superyacht Market Harry Sunarko , FFI		Assessing coastal wetland rehabilitation: Clybucca Wetlands Toby Tucker , The University of New South Wales Water Research Laboratory	A Methodology to Design a Rational Static Underkeel Clearance Rule for Dredging and Port Operations Mark Bennet , OMC International	Improvements to operational wave forecasting using Machine Learning Jeff Hansen , The University of Western Australia
10:30am - 10:50am	12:50pm - 12:50pm	2:30pm - 2:50pm	Temporarily Permanent – Creating the Stage for the 36th Americas Cup William Ingle , Beca		Groyne designs for novel habitat creation with repurposed sediment within the Port of Gladstone Christopher Aiken , Central Queensland University	Underkeel Clearance Forecast for LNG Carriers in an Access Channel with Beam Swells Wim van der Molen , Baird Australia Pty Ltd	Potential applications of HF Radar in New Zealand coastal waters Joe O'Callaghan , NIWA
10:50am - 11:10am	12:50pm - 1:10pm	2:50pm - 3:10pm	Break				
11:10am - 12:00pm	1:10pm - 2:00pm	3:10pm - 4:00pm	Conference Awards and Closing Ceremony		Sponsored by 		

POUNAMU (GREENSTONE) SPONSOR



KĀHIKATEA SPONSOR



PĪKAO (GOLD) SPONSOR



KŌTUKU (SILVER) SPONSOR



KŌURA (BRONZE) SPONSOR



EXHIBITORS

