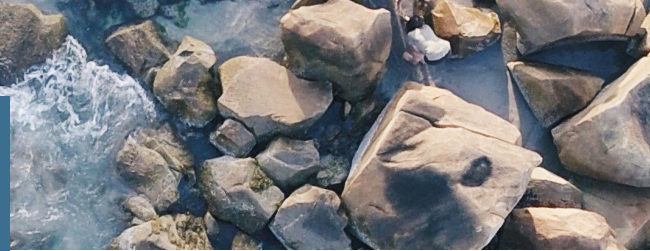


OCEAN MODELLING AND OBSERVATIONS WORKSHOP



Marie Reay Teaching Centre (Building 155)
Australian National University, Canberra

PROGRAM

Tuesday 2nd July

Time	Topic	Speaker	Theme
8:00	Registration		
8:50	Welcome to Country and introduction		
9:20	A decadal assessment of the eReefs platform compared with field observations in the Great Barrier Reef	Dr Jennifer Skerratt	Keynote
10:00	Morning tea		
10:30	The South East Australian Coastal Ocean Forecast System	Prof Moninya Roughan	Ocean Dynamics
10:45	Simulated dynamics in Circumpolar Deep Water properties in the Southern Ocean	Hangyu Meng	Ocean Dynamics
11:00	Variability of Antarctic dense water overflows observed from space	Matthis Auger	Ocean Dynamics
11:15	Implementing and evaluating a novel tidal wave drag parameterisation in MOM6	Luwei Yang	Ocean Dynamics
11:30	Does the Antarctic Slope Current control ocean heat transport towards Antarctica?	Adele Morrison	Ocean Dynamics
11:45	Group photo		
12:00	Lunch		
13:00	Tracking Australia's boundary current connections to the deep ocean	A/Prof Helen Phillips	Ocean Dynamics
13:15	Modeling ocean interior dynamics at high-resolution in the ACC meander south of Tasmania, toward the assimilation of SWOT observations	Dr Yann-Treden Tranchant	Ocean Dynamics
13:30	A machine learning approach to rapidly downscale sea surface temperature extremes on the Great Barrier Reef	Dr Chaojiao Sun	Use of Artificial Intelligence / Machine Learning in Oceanography
13:45	Assimilation of multi-platform remote sensing reflectance into a BGC model of the Great Barrier Reef	Dr Emlyn Jones	Modelling for Decision Making
14:00	Lightning talks		
14:30	Afternoon tea		
15:00	Posters		
17:00	End		
18:00	Dinner		

Wednesday 3rd July

Time	Topic	Speaker	Theme
9:00	Is numerical mixing in ocean models a solved problem?	A/Prof Jan David Zika	Keynote
9:40	Ocean modelling on GPUs with Oceananigans allows for ocean mesoscale-resolving climate projections	Navid Constantinou	Advances in Modelling Methods
9:55	ACCESS-OM3: progress and roadmap for Australia's next-generation global ocean - sea ice - wave model	Dr Andrew Kiss	Advances in Modelling Methods
10:10	Linking empirical data and oceanographic models to enhance marine plastic pollution management	Dr C Gabriela Mayorga Adame	Modelling for Decision Making
10:25	Implementing an automated relocatable wave-flow coupled coastal hydrodynamic forecast model	Claire Trenham	Modelling for Decision Making
10:40	Morning Tea		
11:10	Tidal constituents' evolution and its implication for tide prediction around Australia using ANCHORS tide gauge dataset	Dr Oceane Richet	Observational Oceanography
11:25	Seasonality of surface currents in the northwest off Australia elucidated from surface ocean drifters	Dr Prescilla Siji	Observational Oceanography
11:40	Developing a Framework for a sustained Northern Territory Fisheries Ocean Observing Network	Dr Ruth G. Patterson	Observational Oceanography
11:55	An autonomous observation system for RSV Nuyina to measure ocean and sea ice surface properties	Dr Ippolita Tersigni	Observational Oceanography
12:10	Oceanic teleconnections from the tropics to the Southern Ocean	Zhi Li	Observational Oceanography
12:25	Lunch		
13:30	A vortex-force formalisation implementation for unstructured COMPAS-SWAN coupling system— A case study along select areas of the Australian Coastline	Cagil Kirezci	Advances in Modelling Methods
13:45	National-scale assessment of coastal hazards using both deterministic and probabilistic approaches in Vanuatu	Ron Hoeke	Advances in Modelling Methods
14:00	Comparisons of CFOSAT SWIM wave measurements against wave buoys	Dr Marites Canto	Observational Oceanography
14:15	A comparison of wide-swath altimetry with an ensemble Kalman Filtering ocean forecast system	Gary Brassington	Observational Oceanography
14:30	Lightning talks		
15:00	Afternoon tea		
15:30	Posters		
17:00	End		

Thursday 4th July

Time	Topic	Speaker	Theme
9:00	The effects of ocean dynamics on the melting of ice shelves: a fine-scale numerical simulation approach	Dr Catherine Vreugdenhil	Keynote
9:40	Breakouts		
10:40	Morning tea		
11:10	Implementing sea ice thermodynamics from laboratory experiments into CICE	Kial Stewart	Ocean Interaction With Sea Ice
11:25	Impacts of Antarctic Summer Sea-Ice Extremes	Edward Doddridge	Ocean Interaction With Sea Ice
11:40	Modelling the ice edge wave-amplitude drop and its influence on the Antarctic marginal ice zone	Noah Day	Ocean Interaction With Sea Ice
11:55	Ocean surface vertical resolution controls Dense Shelf Water formation around Antarctica	Wilton Aguiar Carvalho Silva Filho	Other
12:10	Resolving Antarctic Bottom Water pathways in Australian-Antarctic Basin	Ms Polina Sholeninova	Other
12:25	Lunch		
13:30	Bluebottles: drifting behaviour and ocean pathways to the shore	Dr Amandine Schaeffer	Ocean Dynamics and Biology
13:45	Extremely normal; why ACCESS-OM2 missed the most remarkable Antarctic sea ice loss on record	Will Hobbs	Ocean interactions with Sea Ice
14:00	Improved ocean dynamics using observational data products and models	Dr Beatriz Pena Molino	Ocean Dynamics
14:15	Towards new insights into ocean eddy structure by combining models and observations over a period of unprecedented data richness (Sept – Nov 2023)	Dr Colette Kerry	Ocean Dynamics
14:30	Afternoon tea		
15:00	Breakout reporting		
16:00	Wrap up and awards		
16:30	End		

This is a joint workshop of the Consortium for Ocean-Sea Ice Modelling in Australia (COSIMA) and Australian Coastal and Oceans Modelling & Observations (ACOMO). It is brought to you by IMOS and ACCESS-NRI.

