

# 10<sup>th</sup> International Workshop on Modeling the Ocean – IWMO2018

## Program

### MONDAY JUNE'25

<b>07h30-</b>	<b>Registration</b>	
08h15-08h30	Conference Opening – Welcome <b>Ricardo</b> (logistics; POSTER; 15min+5min; OYSAs; Note slowly-varying PERIODS of BREAKS & LUNCHEs etc.)	
<b>08h30</b>	<b>Air-sea-ice coupled processes</b> <b>Chairs Humio Mitsudera &amp; Luciano Pezzi</b>	
08h30-08h50	Air-sea interactions during strong winter extratropical storms	<i>Ruoying He</i> (North Carolina St.Univ.)
08h50-09h10	Numerical modeling of the interactions between hurricanes, the Gulf Stream and coastal sea level	<i>Tal Ezer</i> (Old Dominion Univ.)
09h10-09h30	Sea surface cooling mechanism during ocean SACZ episodes at Southwestern Atlantic	<i>Luciano P. Pezzi</i> (INPE)
09h30-09h50	Modeling seasonal and interannual variability of Great Lakes ice cover using FVCOM+ice model	<i>Jia Wang</i> (NOAA)
09h50-10h10	A deep-learning Algorithm of neural network for parameterizing typhoon-induced SST cooling	<i>Jun Wei</i> (Peking University)
10h10-10h30	Land-falling typhoons are controlled by the meridional oscillation of the Kuroshio Extension	<i>Leo Oey</i> (National Central Univ.)
<b>10h30-10h50</b>	<b>Coffee-break (Set up POSTERS)</b>	
<b>10h50</b>	<b>Large Scale Circulation and Climate Dynamics</b> <b>Chairs Yasumasa Miyazawa &amp; Moacyr Araujo</b>	
10h50-11h10	Development of an Inter-basin Pacific-Indian Ocean Model: The Indonesian ThroughFlow (ITF) and the Circulation in the Banda Sea	<i>Huijie Xue</i> (University of Maine)
11h10-11h30	Dynamics of Brazil/Malvinas confluence and its bifurcation into the Subtropical Front and the Subantarctic Front	<i>Humio Mitsudera</i> (Hokkaido University)
11h30-11h50	Development of the Kuroshio large meander in 2017	<i>Toru Myiama</i> (JAMSTEC)
11h50-12h10	South and Tropical Atlantic dynamic variability	<i>Joseph Harari</i> (USP)
12h10-12h30	Arctic Hydrological Processes and Changes revealed with Concurrent Satellite Remote Sensing Data	<i>Shiming Xu</i> (Tsinghua University)
<b>12h30-14h00</b>	<b>Lunch (1 hour 30 min) (Set up POSTERS)</b>	

<b>13h15-14h00</b>	<b>Round Table Discussion Session</b> <b>Chairs Yu-Lin Chang, Fanghua Xu &amp; Tsubasa Kodaira</b>	
<b>14h00</b>	<b>Ecosystem, biogeochemical &amp; interdisciplinary science</b> <b>Chairs Xiao Hua Wang &amp; Carlos Teixeira</b>	
14h00-14h20	BGC-Argo Observations and Physical-Biogeochemical Modeling	<i>Fei Chai</i> <i>(Univ. Maine &amp; SIO)</i>
14h20-14h40	Potential impact of ocean circulation on the declining Japanese eel catches	<i>Yu-Lin Chang</i> <i>(JAMSTEC)</i>
14h40-15h00	Biophysical modeling of the Brazilian sardine: from reproduction to your table	<i>Douglas Gherardi</i> <i>(INPE)</i>
15h00-15h20	Regional variations in the subsurface biogeochemical response to mesoscale eddies in the North Pacific	<i>Fanghua Xu</i> <i>(Tsinghua University)</i>
15h20-15h40	Simulation of the distribution of <sup>137</sup> Cs in the ocean from nuclear tests	<i>Chang Zhao</i> <i>(First Inst. Oceanogr.)</i>
<b>15h40-16h10</b>	<b>Coffee-break (Set up POSTERS)</b>	
<b>16h10</b>	<b>Multi-scale interactions: gyres, eddies &amp; fronts</b> <b>Chairs Yign Noh &amp; Paulo Calil</b>	
16h10-16h30	Wind-induced subduction at the South Atlantic subtropical front	<i>Paulo Calil</i> <i>(FURG)</i>
16h30-16h50	On the scale dependence of oceanic eddy potential energy dissipation	<i>Stuart Bishop</i> <i>(North Carolina St. Univ.,)</i>
16h50-17h10	Frontolysis by surface heat flux in the Agulhas Return Current region with a focus on mixed layer processes	<i>Shun Ohishi (OYSA)</i> <i>(Nagoya University)</i>
17h10-17h30	Topographic–baroclinic Instability and Formation of Kuroshio Current Loop	<i>Jingsong Guo</i> <i>(First Inst. Oceanogr.)</i>
<b>18h30</b>	<b>Bus departure to welcome icebreak-cocktail</b>	

## TUESDAY JUNE'26

<b>08h30</b>	<b>Waves, Currents and Turbulence Chairs Jinyu Sheng &amp; Xiao Hua Wang</b>	
08h30-08h50	On the two components of wind-driven ocean surface stress	<i>George Mellor (Princeton University)</i>
08h50-09h10	Ocean Waves as a Missing Link Between Atmosphere and Ocean	<i>Alexander Babanin (Univ. Melbourne)</i>
09h10-09h30	Nonlinear Wave Ensemble Averaging using Neural Networks	<i>Ricardo Campos (UMD/NOAA)</i>
09h30-09h50	Longer waves modulation on short waves dissipation source term	<i>Pedro V. Guimaraes (SHOM) (OYSA)</i>
09h50-10h10	Influence of the Improved Ocean Mixed Layer Process in the Earth System Model: Langmuir Circulation and Diurnal Warming	<i>Yign Noh (Yonsei University)</i>
10h10-10h30	A Numerical Simulation of Surface Waves, Wave-Current Interaction, and Langmuir Circulations	<i>Yutaka Yoshikawa (Kyoto University)</i>
<b>10h30-11h00</b>	<b>Coffee-break (POSTERs Prelim)</b>	
<b>11h00</b>	<b>Waves, Currents and Turbulence (Cont'd) Chairs Yutaka Yoshikawa &amp; Tsubasa Kodaira</b>	
11h00-11h20	Effects of wave-current interactions on suspended-sediment dynamics during strong wave events	<i>Xiao Hua Wang (UNSW)</i>
11h20-11h40	Effects of the Non-breaking Surface Wave-induced Vertical Mixing on Winter Mixed Layer Depth in Subtropical Regions	<i>Siyu Chen (First Inst. Oceanogr.)</i>
11h40-12h00	Tidal Modulations of Surface Gravity Waves in the Gulf of Maine	<i>Jinyu Sheng (Dalhousie University)</i>
12h00-12h20	Young ocean waves favor the rapid intensification of tropical cyclones	<i>Leo Oey (National Central Univ.)</i>
<b>Announcement</b>		
<b>12h30-13h40</b>	<b>Lunch (1 hour 10 min)</b>	

<b>13h40-14h40</b>	<b>POSTER SESSION</b> <b>Chair Tsubasa Kodaira</b>	
<b>14h40</b>	<b>Shelf/Slope, coastal &amp; marginal sea processes</b> <b>Chairs Huijie Xue &amp; Mauro Cirano</b>	
14h40-15h00	Submesoscale eddies generated by Kuroshio and tidal currents around Izu islands south of Japan	<i>Tsubasa Kodaira</i> ( <i>University of Tokyo</i> )
15h00-15h20	Observation of nonlinear interactions between near-inertial oscillations and continental shelf waves in the Northern South China Sea in 2014	<i>Junyi Li</i> ( <i>Guandong Ocean Univ.</i> )
15h20-15h40	An LETKF-based ocean reanalysis for the Asia-Oceania region using Himawari-8 SSTs	<i>Shun Ohishi</i> ( <i>Nagoya University</i> )
<b>15h40-16h10</b>	<b>Coffee-break (POSTERs Prelim)</b>	
<b>16h10</b>	<b>Shelf/Slope, coastal &amp; marginal sea processes (Cont'd)</b> <b>Chairs Fanghua Xu &amp; Yu-Lin Chang</b>	
16h10-16h30	Influence of continental waters in the Arvoredo Marine Biological Reserve, Brazil	<i>Anna Dalbosco (OYSA)</i> ( <i>UFSC</i> )
16h30-16h50	Effect of channel curvature on the salinity intrusion in idealised and real estuaries	<i>Johannes Pein (OYSA)</i> ( <i>Helmholtz-Zentrum</i> )
16h50-17h10	Modelling flow-topography interactions over shelf break canyons in the southwestern tropical Atlantic	<i>Marcus Silva</i> ( <i>UFPE</i> )
17h10-17h30	Numerical Study on the Seasonal Circulations in the Gulf of Thailand	<i>Changshui Xia</i> ( <i>First Inst. Oceanogr.</i> )
<b>17h30-...</b>	<b>FREE time for Relaxation &amp; Recreation</b>	

## WEDNESDAY JUNE'27

<b>08h30</b>	<b>Model development and Applications Chairs Tal Ezer &amp; Yu-Lin Chang</b>	
08h30-08h50	Development of data assimilation techniques toward resolving smaller scale oceanic phenomena	<i>Yasumasa Miyazawa (JAMSTEC)</i>
08h50-09h10	On the computation of pressure in numerical ocean models, with focus on terrain following models	<i>Jarle Peder Berntsen (University of Bergen)</i>
09h10-09h30	Revisit of Inertial Instability and Phase Error in Time Integration Schemes in Ocean and Atmospheric General Circulation Models	<i>Jia Wang (NOAA)</i>
09h30-09h50	On open boundary condition for tidally and sub-tidally forced circulation in a limited-area model	<i>Jianping Gan (Hong Kong U Sci Tec)</i>
09h50-10h10	Tides and freshwater in the Florianopolis coastal region from very high resolution numerical modelling	<i>Martinho Marta-Almeida (Spanish Inst. Ocean.)</i>
10h10-10h30	<a href="#">An operational forecasting system for the physical processes in the Santos Estuarine System - Southeast Brazil</a>	<a href="#">Carine Costa (USP) (OYSA)</a>
<b>10h30-10h50</b>	<b>Coffee-break</b>	
10h50-12h10	<b>POSTER SESSION (1 hour 20 min) Chairs Fanghua Xu &amp; Yu-Lin Chang</b>	
<b>12h10-14h00</b>	<b>Lunch (1 hour 20 min)</b>	
<b>13h15-14h00</b>	<b>Round Table Discussion Session Chairs Huijie Xue &amp; Jarle Berntsen</b>	
<b>14h00</b>	<b>Model development and Applications (Cont'd) Chairs Jarle Berntsen &amp; Joseph Harari</b>	
14h00-14h20	Recent developments in JCOPE coastal ocean modeling	<i>Sergey Varlamov (JAMSTEC)</i>
14h20-14h40	High resolution modeling of near-shore wave processes using the implicit unstructured WAVEWATCH-III	<i>Fabien Leckler (SHOM)</i>
14h40-15h00	Forecasting Storm Tides in the South Brazil Bight	<i>Belmiro Castro Filho (USP)</i>
15h00-15h20	Regional modelling of the north Pacific Ocean currents and waves applied to plastic-debris transport and accumulation in the Great Pacific Garbage Patch	<i>Ivan Soares (The OceanCleanup)</i>
15h20-15h40	The impact of assimilating SST, Argo and SLA data into a tidally driven model for the Brazil Current region	<i>Clemente Tanajura (UFBA)</i>
<b>15h40-16h00</b>	<b>Coffee-break</b>	

<b>16h00-17h20</b>	<b>Special OYSA Session Chairs Yu-Lin Chang, Fanghua Xu &amp; Tsubasa Kodaira</b>	
16h00-16h20	Numerical modeling of storm surges in the coast of Mozambique	Alberto J. Bié ( <b>OYSA</b> )
16h20-16h40	Automated eddy detection in the Brazil Current near the Abrolhos bank	Gabriel Aarão ( <b>OYSA</b> )
16h40-17h00	Conceptual model proposal for the continent-ocean interface of the semi-arid region of Brazil	Bruno Pereira ( <b>OYSA</b> )
17h00-17h20	Impact of different strategies to assimilate Argo data into the HYCOM over the South Atlantic Ocean	Filipe Costa ( <b>OYSA</b> )
<b>18h30</b>	<b>Conference Dinner @ Mendes Plaza</b>	

## THURSDAY JUNE'28

<b>08h30</b>	<b>From Observations to Model Predictions Chairs Ricardo de Camargo &amp; Clemente Tanajura</b>	
08h30-08h50	The Urban Ocean - The New Frontier	<i>Alan Blumberg (Jupiter)</i>
08h50-09h10	A High-Performance Implementation of Local Ensemble Transform Kalman Filter (LETKF)	<i>Zheng Fan (Tsinghua University)</i>
09h10-09h30	A 4D-Variational Ocean Data Assimilation System for Santos Basin, Brazil (Project Azul)	<i>Livia Mariano (ProOceano)</i>
09h30-09h50	Introduction to a Global High Resolution Ocean Forecast System - the FIOCOM	<i>Guansuo Wang (First Inst. Oceanogr.)</i>
09h50-10h10	Assessing the extended-range predictability of HYCOM+RODAS System in the South Atlantic	<i>Clemente Tanajura (UFBA)</i>
10h10-10h30	To be confirmed.	<i>Ricardo de Camargo (USP)</i>
<b>10h30-10h50</b>	<b>Coffee-break</b>	
<b>10h50-12h30</b>	<b>OYSA Awards Open discussion for IWMO2019 Conference Closing</b>	