14th International Workshop on Modeling the Ocean (IWMO)
June 17 - 20, 2024
Sapporo, Japan

Chair	Time	1st Author (Red: Keynote speaker, Blue: OYSA candidate)	Presenter (if not the 1st author)	Title
June 17th				
	09:00-09:20	**Welcome**		
		Circulation and Dynamics in Open Ocean and Marginal Seas		
Fei Chai & Yusuke Terada	09:20-09:45	**Changming Dong**		Energy cascade and vertical heat transport by submesoscale processes and their parameterization
	09:45-10:00	Wenzhou Zhang	Sheng Lin	Mechanism of oceanic eddies in modulating the sea surface temperature response to a strong typhoon in the western North Pacific
	10:00-10:15	**Xianliang Chen**		Baroclinic nonlinear saturation and secondary instability of current-undercurrent meanders
	10:15-10:30	Fei Chai		Unraveling the Formation mechanism of Marine Heatwaves in the Northeast Pacific
	10:30-10:45	Takuro Matsuta		Inertial Effect in Barotropic Channel Models under the Weakly Nonlinear Regime
	10:45-11:05	Break		
Tal Ezer & Xianliang Chen	11:05-11:20	Toru Miyama		Transition of the Kuroshio Large Meander path and its impact on the Seto Inland Sea
	11:20-11:35	Mingting Li		The pathway of South Pacific water intruded into the sub-thermocline Makassar Strait during the winter of 2016-2017
	11:35-11:50	Tingting Yan		Dynamical interactions between the Kuroshio Large Meander and the coastal circulation off the south coast of Japan
	11:50-12:05	Zhiqiang Liu		Pathway and Age of South China Sea Waters in the Pacific and India Oceans
	12:05-12:20	Ruoying He		Marine Heatwaves in the Deep-Sea Benthic Ecosystems of Northwest Atlantic Continental Margin
	12:20-13:45	Lunch		
Ricardo Carmago & Rin Harada	13:45-14:00	Yusuke Ushijima		Temperature Difference between Non-Eddy-Resolving and Eddy-Resolving Ocean Models in the Upper Subtropical North Pacific Ocean
	14:00-14:15	**Yusuke Terada**		Generation of the Equatorial Intermediate Current by Yanai waves in the eastern Pacific Ocean
	14:15-14:30	Joseph Zhang		Internal tides reverse tidal currents around southern Taiwan
	14:30-14:45	Humio Mitsudera		Impacts of bottom topography on the formation of the North Pacific subtropical-subarctic frontal zone
	14:45-15:05	Break		
		Coastal and Shelf Sea Processes		
Yasumasa Miyazawa & Weicong Cheng	15:05-15:20	Jun Wei		Dynamic response of coastal surface currents to tropical cyclones based on high-frequency radar observations
	15:20-15:35	Nan Yuan		Ageostrophic current intrudes into the ice-shelf cavity
	15:35-15:50	**Weicong Cheng**		Dynamics of the Counter-wind currents over the China Shelf Seas
	15:50-16:05	Yuezhang Xia		Experimental Study on the Influences of Water Content, Mineral Component, and Biopolymer Content on Rheological Behavior of Cohesive Sediment
	16:05-16:20	**Wenjun Zhu**		Climate Change Induced Coastal Flooding Impacts on the Georges River Estuary, Sydney, New South Wales, Australia
	16:20-16:35	**photo session**		
	16:45	**Ice Breaker**		
June 18th				
		Sea Ice Processes		
Humio Mitsudera & Peng Xin	09:00-09:25	**Takuji Waseda**		Coupled processes of wave, wind, current, and ice in the Lützow Holm Bay Antarctica
	09:25-09:40	Ryu Saiki		Difference of Pre-conditioning impact between Heavy-ice-year and Light-ice year in the Okhotsk Sea
	09:40-09:55	**Rin Harada**		Parameterizations of the air-ice and ice-ocean drag coefficients depending on the roughness of sea ice floes
	09:55-10:10	Koji Shimada		Integrated sea ice thickness algorithm based on thermodynamic and dynamic sea ice growth using AMSR2 data
	10:10-10:25	Tsubasa Kodaira		Submesoscale and Mesoscale Eddies Near the Sea Ice Edge in the Canada Basin, Arctic Ocean
	10:25-10:45	Break		
		Land Ocean Interaction Processes		
Yign Noh & Wenjun Zhu	10:45-11:10	**Shinichiro Kida**		Development of an ocean-river-runoff seamless model
	11:10-11:25	Joanna Staneva		What-If Scenario for nature-based solutions
	11:25-11:40	**Peng Xin**		Estimation of freshwater discharge from the Gulf of the Alaska drainage basins
	11:40-11:55	Li Li		Sediment dynamics in the macro-tidal turbid Hangzhou Bay during typhoons
	11:55-13:15	Lunch		
		Waves, Tides, Turbulence and Mixing		
Joanna Stevena & Changhoon Ko	13:15-13:40	**Tal Ezer**		A turbulent model tests the Ekman theory and simulates the distribution of biological particles in the ocean
	13:40-13:55	Yasushi Fujiwara		Numerical study of the wave-induced mass transport and consequent counter-current response in the coastal ocean
	13:55-14:10	Yan Li		Coupled interaction between surface waves and a vertically sheared current
	14:10-14:30	Break		
Huijie Xue & Koichiro Kikkawa	14:30-14:45	Xiao Hua Wang		Nearshore wave prediction using Graph Neural Network at Darwin Harbour, Australia
	14:45-15:00	Jinyu Sheng		Examining Wave-Current Interaction during Hurricane Fiona over the Southeastern Canadian Shelf using a Coupled Circulation-Wave Model
	15:00-15:15	**Changhoon Ko**		Analysis of seasonal submesoscale processes and characteristics through Lagrangian surface drifters
	15:15-15:30	Ayumi Fujisaki-Manome		Modeling thermal structure in large freshwater lakes
	15:30-15:45	Yohei Onuki		Breaking of internal waves simulated in a distorted domain model
		Poster Session		

		Xiaomei	Ji			The mechanical response of salinity stratification to multiple factors in a highly modified estuary
		Shintaro	Bunya			Ocean-to-Creek Scale ADCIRC-SWAN Tides, Storm Surge and Waves Prediction System with Data Assimilation
		Koichiro	**Kikkawa**			On nondimensional parameters describing Langmuir turbulence effects on the MLD under surface heating
	15:45-17:45	Hitoshi	Tamura			Coastal destruction in Tokyo Bay induced by Typhoon Faxai in 2019
		Shoto	**Nakamata**			Preliminary numerical study for wind waves with an air-sea two phase flow model
		Kyoko	Ohashi			Quantifying Hydrodynamic Connectivity among Canada's Atlantic Marine Protected Areas using the Lagrangian Particle-Tracking Method
		Taiki	**Adachi**			CMIP6 ensemble analysis for the Decadal prediction of the Kuroshio Extension
		Ying	Chen	Zhongya	Cai	Seasonal Dynamics of Deep-Water Overflow in the Luzon Strait
	17:45	**Bus to Excursion/Banquet**				

June 19th						
		Numerical Techniques and Approaches in Ocean Modeling and Data Analysis				
Yutaka Yoshikawa & Hyojeong Kim	09:00-09:25	**Yoshimasa**	**Matsumura**			Eulerian-Lagrangian hybrid modeling of multiscale oceanic processes
	09:25-09:40	Jia	Wang	Ayumi	Fujisali-Mamome	On the application of the two-time stepping Euler forward Runge-Kutta schemes to the rotating shallow water equations:
	09:40-09:55	Yu-Lin Eda	Chang			Projection of August 2021 pumice dispersion from the submarine eruption of Fukutoku-Oka-no-Ba volcano in the western North Pacific
	09:55-10:10	**Shuyi**	**Zhou**			A Physical-informed Neural Network for Improving Air-Sea Turbulent Heat Flux Parameterization
	10:10-10:25	Huijie	Xue			Using Deep-Learning Models to Estimate Throughflows Across the Indonesian Seas
	10:25-10:45	Break				
		Air-Sea Interaction Processes and Climate Variations				
Jinyu Sheng & Yeonju Choi	10:45-11:10	**Soon-Il**	**An**			Impact of Antarctic Ice Sheet Meltwater Pulse on Atlantic Meridional Overturing Circulation
	11:10-11:25	**Hyojeong**	**Kim**			Understanding inter-model diversity in the NAO-AMOC relationship in CMIP6: implications for climate prediction
	11:25-11:40	**Borui**	**Wu**			Deep reaching wave energy-flux in the off-equatorial central and western regions of the Pacific Ocean during the El Nino and La Nina events
	11:40-11:55	**Zimeng**	**Li**			Interpreting Negative IOD Events Based on the Transfer Routes of
	11:55-12:10	Guangli	Zhang			Attributing interdecadal variations of southern tropical Indian Ocean dipole mode to rhythms of Bjerknes feedback intensity
	12:10-13:30	Lunch				
Tsubasa Kodaira & Borui Wu	13:30-13:45	Hajoon	Song			A significant changes in the mesoscale eddy demographics by wind-current interaction in the Southern Ocean
	13:45-14:00	Alberto Jose	Bie	Ricardo	de Camargo	Numerical modeling of Tropical Cyclone Idai (2019): the role of the underlying ocean on its evolution
	14:00-14:15	Fanghua	Xu			Development of an accelerated sea spray-mediated heat flux parameterization and an application for global tropical cyclone intensity forecasts
	14:15-14:30	Jianping	Gan			Parameterization of the Vertical Mixing for the Luzon Undercurrent in the northern Western Pacific Ocean
	14:30-14:50	break				
		Coupled Physical-Biogeochemical Processes				
XiaoHua Wang & Zimeng Li	14:50-15:05	**Yign**	**Noh**			Effects of Mixing Processes on Phytoplankton Blooms Based on Lagrangian Plankton Model Coupled to LES
	15:05-15:30	Yuntao	Wang			Distribution and diffusion of the point-sources pollutants in the Pearl River Estuary
	15:30-15:45	**Yeonju**	**Choi**			Influence of Submesoscale Eddies on Autumn Phytoplankton Blooms
	15:45-16:00	**Haoran**	**Zhang**			The seasonal dynamics of phytoplankton following extreme aerosol deposition events
	16:00-16:20	Break				
Fanghua Xu & Haoran Zhang	16:20-16:35	Wentao	Ma			Lateral transport dominates the dissolved iron supply to the euphotic zone of the North Pacific Subtropical Gyre
	16:35-16:50	**Min**	**Yang**			Simulations of PCBs in the Northwestern Pacific Ocean with a Three-Dimensional High-Resolution Hydrodynamic-Ecosystem-PCB Coupled Model
	16:50-17:05	**Yumi**	**Abe**			Comparison of CMIP models with observations for historical ocean deoxygenation in the North Pacific
	17:05-17:20	Meng	Xia			The coupled physical-biological based surface-groundwater Modeling System for the Chesapeake Bay

June 20th						
		Coupled Physical-Biogeochemical Processes				
Eda Chang & Min Yang	09:00-09:15	Joanna	Staneva			Eutrophication hotspots, nitrogen fluxes and climate impacts in estuarine ecosystems: A model study of the Odra estuary system
	09:15-09:30	Menghong	Dong	Xinyu	Guo	Evaluation of the Effects of Submarine Groundwater on Nutrient Concentration and Primary Production in a Deep Bay of the Japan Sea
	09:30-09:50	Break				
		Data Assimilation and Ocean Forecast Systems (4)				
Joseph Zhang & Yumi Abe	09:50-10:05	**Yasumasa**	**Miyazawa**			Skill assessment of an ensemble-based Northwestern Pacific Ocean forecast system
	10:05-10:30	Peng	Zhan			Efficient Dynamical Downscaling of General Circulation Models Using Continuous Data Assimilation
	10:30-10:45	Shun	Ohishi			LETKF-based Ocean Research Analysis (LORA): A new ensemble ocean analysis dataset
	10:45-11:00	Shoichiro	Kido			Preliminary results of SynObs Flagship Observing System Experiments
	11:00	**OYSA award, 2025 IWMO, Special issue and Concluding Remark**				
	12:00	**End**				