

## 2025 JKWOC/AWOC Program

**[Day-1] Nov. 18 (Tuesday)**

<b>Opening Ceremony</b>			
	13:10-13:20	<b>Welcoming Remarks (Director of External Relations at KIOST)</b>	Joo-Hyung Ryu
	13:20-13:40	<b>Opening Remarks (Deputy Director of National Ocean Satellite Center at KHOA)</b>	Heeyoon Park
<b>Keynote Speech #1</b>			
KN1	13:40-14:30	SCSDCT: a gap-filled chlorophyll-a reconstruction and its application	Wenfang Lu

<b>Session 1: Ocean Color Missions</b>			
Chair : Jongkuk Choi			
		<b>Title</b>	<b>First Author</b>
1	14:40-15:00	Toward longterm observation by GCOM -C	Hiroshi Murakami
2	15:00-15:20	Evaluation of near-blue UV remote sensing reflectance over the global ocean from SNPP VIIRS, PACE OCI, and GCOM-C SGLI	Lufei Zheng
3	15:20-15:40	National Ocean Satellite Center: GOCI Service Overview	Hyeongyu Lee
4	15:40-16:00	Current Calibraton and Validation status of the GOCI-II Atmospheric Correction	Jae-Hyun Ahn

<b>Poster Session #1</b>			
PS1	16:00-17:00	<b>15 Poster Presentations</b>	

<b>Session 2: Machine Learning and Algorithm Development</b>			
Chair : Hiroshi Murakami			
		<b>Title</b>	<b>First Author</b>
5	17:00-17:20	Simultaneous retrieval of water quality indicators using GCOM-C satellite and Machine learning models	Yuuto Sasaki
6	17:20-17:40	Development of a GOCI-II Algorithm for Red-Tide Detection and Concentration Estimation Using Physics-Based Machine Learning	Jong Hyuk Lee
7	17:40-18:00	Local Tuning of Satellite Chlorophyll-a in Coastal Waters using Simple Statistical and Machine Learning Techniques	Joji Ishizaka
8	18:00-18:20	Machine Learning boosts robust ocean color retrieval in complex atmosphere and ocean systems: taking coastal Forel-Ule Index mapping as an example	Ruofei Liu

**[Day-2] Nov. 19 (Wednesday)**

**Session 3: IOP/Calibration/Correction**

Chair : Zhongping Lee

	<b>Time</b>	<b>Title</b>	<b>First Author</b>
9	9:00-9:20	Evaluation of Uncertainties in Particle Absorption Coefficient Measurements Based on the Filter-Pad Technique and Approaches for Their Reduction	Riku Goto
10	9:20-9:40	Development of an IOP Ensemble Algorithm (IEA) for Estimating IOP Based on Water Mass Classification in Coastal Areas with High Turbidity	Sotaro Aburadani
11	9:40-10:00	Iterative Approach to the Geostationary Ocean Color Imager-II (GOCI-II) Radiometric Calibration	Minsang Kim
12	10:00-10:20	Multi-Sensor Approach to Improve GOCI-II Gas Absorption Correction Using AMI and GEMS data	Kyeong-Sang Lee
13	10:20-10:40	Spatial Analysis Based on Water Mass Classification Using GCOM-C/SGLI Inherent Optical Properties (IOPs) in Tokyo Bay and Sagami Bay, Japan	Kana Soematsu

**Session 4: Ocean Biogeochemistry and Primary Production**

Chair : Jaehyun Ahn

		<b>Title</b>	<b>First Author</b>
14	11:00-11:20	Analysis of the Nutrient Transport Process in the Southern Java Sea and Its Interplay with Oceanic Eddy Occurrences	Takahiro Osawa
15	11:20-11:40	Relationships between oceanic conditions and Common minke whale ( <i>Balaenoptera acutorostrata</i> ) distribution in spring observed along the eastern coast of Korea	Keiko Yamada
16	11:40-12:00	Relationship between Sargassum biomass and marine heatwaves	Jisun Shin
17	12:00-12:20	Long-term variation in primary production enhancement due to typhoons in the subtropical region of the western north Pacific	Mitsuhiro Toratani

**Keynote Speech #2**

KN2	13:30-14:20	Long-term Water Quality Properties measured from Satellite Ocean Color sensors using Improved Algorithms in the Chesapeake Bay	Seunghyun Son
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**Session 5: Ocean Physics and Climate Variability**

Chair : Joji Ishizaka

		<b>Title</b>	<b>First Author</b>
18	14:20-14:40	Analysis on Subsurface Coastal Upwelling Processes based on Vertical Profiles of Temperature and Salinity derived from Machine Learning	Yoon-Seo Jeong
19	14:40-15:00	Analysis on Three-Dimensional Multi-scale Ocean Fronts in the East Sea Using a Deep-Learning algorithm and the Empirical Mode Decomposition	Eunju Kim
20	15:00-15:20	Study on the Mechanisms of Extreme Sea Surface Temperature Events along the Korean Peninsula Coast	Hyun-Jin Yang
21	15:20-15:40	A Numerical Model Study of Coastal Submesoscale Dynamics Observed with Unmanned Aerial Vehicle	Sin-Young Kim

Poster Session #2			
PS2	15:40-16:40	15 Poster Presentations	

Session 6: Coastal Hazards			
Chair : Tingwei Cui			
		Title	First Author
22	16:40-17:00	Satellite-based assessment of marine blue carbon sinks in Taiwan and the northern South China Sea: validation against in situ observations	Chin-Chang Hung
23	17:00-17:20	Red-Tide Quantification Using an Airborne Multispectral Camera	Seungil Baek
24	17:20-17:40	Regionally Optimized Optical Water Type Classification for the Korean Seas Using Fuzzy C-Means Clustering	Jungho Im
25	17:40-18:00	Application of Ocean Color Remote Sensing Data for Coastal Infrastructure Assessment Considering Ecosystem Services and Human Well-being	Kohtaroh Kobayashi

### [Day-3] Nov.20 (Thursday)

Session 7: Coastal and Estuarine Water Quality			
Chair : Genki Terauchi			
		Title	First Author
26	9:00-9:20	Evaluation of Ocean Color Data Assimilation Configurations for Improving Phytoplankton Reproducibility in Tokyo Bay, Japan	Hiroto Imazu
27	9:20-9:40	Vertical Distribution of Phytoplankton Signatures in the Temperate Coastal Waters of Sagami Bay	Koichi Yano
28	9:40-10:00	Controlled Sediment Retention for Flood Mitigation and Morphological Restoration in the Ma'an River	Happy Mareta
29	10:00-10:20	On the Challenges of Retrieving Phytoplankton Properties from Remote-Sensing Observations	J. Xavier Prochaska

Session 8: Marine Ecology and Remote Sensing Applications			
Chair : Forrest Wu			
		Title	First Author
30	10:40-11:00	Coastal benthic coverage mapping using UAV mounted hyperspectral sensors	Phillip Kim
31	11:00-11:20	A Deep Learning-Based Environmental Stress Index for Monitoring Coral Reefs in Indonesia	Ni Putu Praja Chintya
32	11:20-11:40	Monitoring Summer Eelgrass Die-offs in Nanao Bay Using a Compact Sonar Mounted on a Stand-up Paddle Surfboard	Genki Terauchi

Closing Session			
	11:40-12:00	<a href="#">Discussion on Next Workshop</a>	Youngheon Jo
	12:00-12:10	<a href="#">Closing Remarks</a>	Jongkuk Choi

Poster Session (Day1 and Day2)			
1	poster	How extreme weather events reshape biological carbon pump in tropical/subtropical western North Pacific	Yung-Yen Shih
2	poster	Comparison assessment of in situ and satellite-based methods for estimating marine carbon sinks in the seas around Taiwan	Zi-Xin Liao
3	poster	An Analysis on Water Types Classification in the Western Arctic Ocean in Summer	Kwang-Mo Kim
4	poster	Reducing Uncertainty in a Marine Biological Carbon Pump Model for the Northern South China Sea by Incorporating Satellite-Derived Parameters	Zong-Ru Cheng
5	poster	Comparative Analysis of Total Column Ozone from GK-2A/AMI and GK-2B/GEMS for Improving Atmospheric Correction of GOCI-II	Eunkyung Lee
6	poster	Estimation of High-Resolution Ocean Acidification Indices Using a Clustering-Regression Ensemble	Chae-Reum Kang
7	poster	Seasonal and Long-Term Variability in GOCI-II Level-3 Chlorophyll-a Concentration	Ji-Yeon Baek
8	poster	Improving GOCI-II IOP Retrieval with Hybrid Machine Learning Approaches	Eunna Jang
9	poster	The difference between in situ and satellite-based dissolved organic carbon in South China Sea	Sheng-Lun Chen
10	poster	Simultaneous Assimilation of HF Radar and Ocean Color Satellite Data to Improve a Transport Model for a Semi-Enclosed Bay	Kotaro Yamashita
11	poster	Phenological Characteristics of Phytoplankton Bloom in the South China Sea	Mohd Ikmal Shafiq Rosli
12	poster	Applicability Assessment of an Optical Satellite -Based Turbidity	Yo Matsumoto
13	poster	Machine Learning-Based pCO <sub>2</sub> Estimation in the East China Sea for Spatiotemporal Patterns from 2003 to 2023: Optical Water Classification	DoHyeon Kwon
14	poster	AI-Based Classification of Jellyfish and Quantifying their Size and Distribution in the East China Sea	Yoo-Min Kim
15	poster	Distinction of Seasonal Internal Solitary Waves in the Lombok Strait using GCOM-C/SGLI Data	Chonnaniyah