



**Xiamen Symposium on Marine Environmental Sciences**  
January 14-17, 2025 | Xiamen, China

# **Transformative Science and Technology for a Sustainable Ocean**



近海洋环境科学国家重点实验室 (厦门大学)  
State Key Laboratory of Marine Environmental Science  
(Xiamen University)



Department of Earth Sciences  
National Natural Science Foundation of China

# Welcome

## Message from the Chairs

**Dear XMAS Participants,**

We cordially welcome you to the Xiamen Symposium on Marine Environmental Sciences (XMAS)! This year, XMAS commemorates its seventh iteration in the enchanting city of Xiamen. It is a momentous occasion where we converge to share cutting-edge discoveries, deliberate on transformative concepts, and mutually inspire one another to confront the urgent challenges that our ocean and humanity currently face. As we traverse an era defined by unprecedented global change, the ocean has emerged as both the epicenter of humanity's most pressing crises and the source of its most promising solutions.

Rising sea levels, intensifying marine heatwaves, microplastic pollution, and biodiversity loss are just a few of the formidable issues that underscore the critical state of our ocean. Amidst these daunting challenges, however, lies a remarkable opportunity for positive transformation.

Under the theme "Transformative Science and Technology for a Sustainable Ocean," XMAS endeavors to leverage the power of interdisciplinary collaboration, digital innovation, and practical science. This symposium is not merely a congregation of intellectual minds; it is a clarion call to action. Our agenda places a strong emphasis on equity and inclusion, acknowledging that solving these intricate problems demands the collective wisdom of scientists, educators, policymakers, and community leaders.

We sincerely thank you for being a part of this event. A special note of gratitude goes out to our co-sponsors for their invaluable support. Here's to a symposium that is not only successful but also highly inspiring! We trust that this experience will catalyze meaningful discussions, cultivate long-lasting partnerships, and rekindle the passion required to surmount the challenges that lie ahead.

Wishing you all an inspiring and productive symposium!

Warm regards,

A handwritten signature in black ink, appearing to read 'Minhan Dai'.

**Chair:** Minhan Dai

Scientific Advisory Committee

Three handwritten signatures in black ink, reading 'Feili Li', 'Yao Zhang', and 'Robert Chen'.

**Co-chair:** Feili Li, Yao Zhang, Robert Chen

Local Organizing Committee



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# Introduction

To foster knowledge and ideas exchange within the marine environmental science community and, in particular, to promote interdisciplinary studies, the **State Key Laboratory of Marine Environmental Science (MEL)**, <http://mel.xmu.edu.cn/en>, Xiamen University initiated the **Xiamen Symposium on Marine Environmental Sciences (XMAS)**. The first six symposia were held in 2014, 2015, 2017, 2019, 2021 and 2023, and attracted over 2,500 participants from more than 190 institutions across 30 countries and regions.

The 7<sup>th</sup> iteration, XMAS 2025 is held in Xiamen from January 14 to 17, 2025 focusing on "**Transformative Science and Technology for a Sustainable Ocean.**" The symposium will consist of various interconnected sessions covering physical oceanography, marine biogeochemistry, biological oceanography, geological oceanography, marine pollution, technology and marine policy and governance.

This year's workshops cover hands-on topics such as education and outreach in marine environmental sciences, writing effective reviews and improving your own manuscript. Each workshop provides participants the opportunity to develop practical skills and engage with leading experts in an interactive setting.

Also with co-sponsorship from the **Association for the Sciences of Limnology and Oceanography (ASLO)**, we are co-organizing activities that enrich the symposium. These include a town hall titled "What is ASLO?", workshops focused on engaging students in ocean science education, and practical sessions offering insights into writing reviews and publishing the first paper. Additionally, programs like Mentor-Mentee aim to nurture the next generation of young scientists, fostering connections and guidance to shape their academic and professional journeys.

MEL was established in 2005 under sponsorship from the Ministry of Science and Technology of China (MOST). It has been awarded the Excellent State Key Laboratory in two recent consecutive official reviews by MOST. MEL is dedicated to interdisciplinary cutting-edge research in marine environmental sciences, with particular strengths in marine biogeochemistry and ecosystem studies.



Website



## Organizers and Sponsors :

- State Key Laboratory of Marine Environmental Science, Xiamen University
- Department of Earth Sciences, National Natural Science Foundation of China

## Co-sponsors

- Association for the Sciences of Limnology and Oceanography (ASLO)
- Atmosphere and Ocean Research Institute, The University of Tokyo (AORI)
- China Scientific Committee on Oceanic Research (China SCOR)
- China-ASEAN College of Marine Sciences, Xiamen University Malaysia (CAMS)
- College of Earth, Ocean, and Environment, University of Delaware (CEOE)
- College of Ocean and Earth Sciences, Xiamen University (COE)
- College of the Environment and Ecology, Xiamen University (CEE)
- Digital Twin of the Ocean (DiTTO)
- Fujian Ocean Innovation Center (Fujian-OI)
- GEOMAR Helmholtz Centre for Ocean Research Kiel (GEOMAR)
- Global Ocean Oxygen Decade (GOOD)
- Institute of Ocean and Earth Sciences, University of Malaysia (IOES)
- National Observation and Research Station for the Taiwan Strait Marine Ecosystem (T-SMART)
- Ocean Negative Carbon Emissions Program (ONCE)
- Ocean Science and Engineering, Georgia Institute of Technology (OSE)
- College of Marine Sciences, Sun Yat-Sen University (NSYSU)
- State Key Laboratory of Satellite Ocean Environment Dynamics, Ministry of Natural Resources (SOED)
- Surface Ocean - Lower Atmosphere Study (SOLAS)
- Swire Institute of Marine Science, The University of Hong Kong (SWIMS)
- Taiwan Ocean University (NTOU)

## Scientific Advisory Committee

**Chair:** Minhan Dai

**Members:** Annalisa Bracco, Jonathan Bull, Robert Chen, Sophie Clayton, Patricia Glibert, Zhengtang Guo, Juliet Hermes, Kenneth Mei Yee Leung, Yonglong Lu, Christelle Not, Francois William Primeau, Janina Rahlff, Thomas Reinthaler, Haojia Abby Ren, Hiroaki Saito, Dalin Shi

## Local Organizing Committee

**Co-chairs:** Feili Li, Yao Zhang, Robert Chen

**Members:** Ling Cao, Bicheng Chen, Yibin Huang, Jianghui Li, Xin Liu, Yuan Shen, Weilei Wang, Yurui Zhang, Zengkai Zhang, Yue Zheng

# Logistics

## Symposium Venue

**Xiamen International Conference Center**  
**厦门国际会议中心**

**Address:** No.1693, East Island Ring Road, Xiamen China  
**地址:** 厦门市环岛东路 1693 号

## Registration

### Time

Jan 13 13:00 – 20:00  
Jan 14 07:30 – 18:00  
Jan 15 08:00 – 18:00  
Jan 16 08:00 – 18:00  
Jan 17 08:00 – 12:00

### Venue

South Entrance-1<sup>st</sup> Floor  
Xiamen International  
Conference Center



## Venue Layout and Wi-Fi Access

### Meeting Room List

Name	Floor
Straight Hall   海峡厅	2F
1B Meeting Room   1B 会议室	1F
1C Meeting Room   1C 会议室	1F
1D Tongwen Hall   1D 同文厅	1F
1E Harmony Hall   1E 大同厅	1F
1F-1 Meeting Room   1F-1 北侧厅	1F
1G01 Meeting Room   1G01 会议室	1F
1G02 Meeting Room   1G02 会议室	1F
2A Meeting Room   2A 会议室	2F
2C Meeting Room   2C 会议室	2F
3B Meeting Room   3B 会议室	3F
3C Meeting Room   3C 会议室	3F

### Wi-Fi

**SSID:** XMAS2025

**Password:** XMAS2025



## Icebreaker

### Time

Jan 13 18:30 – 20:30

### Venue

3<sup>rd</sup> Floor Grand Ballroom,  
InterContinental Xiamen  
厦门海景洲际酒店 3 楼展鸿厅

### Address

No 19 Lingshiguan Road, Xiamen, China

地址：厦门市领事馆路 19 号



# Floor Plan



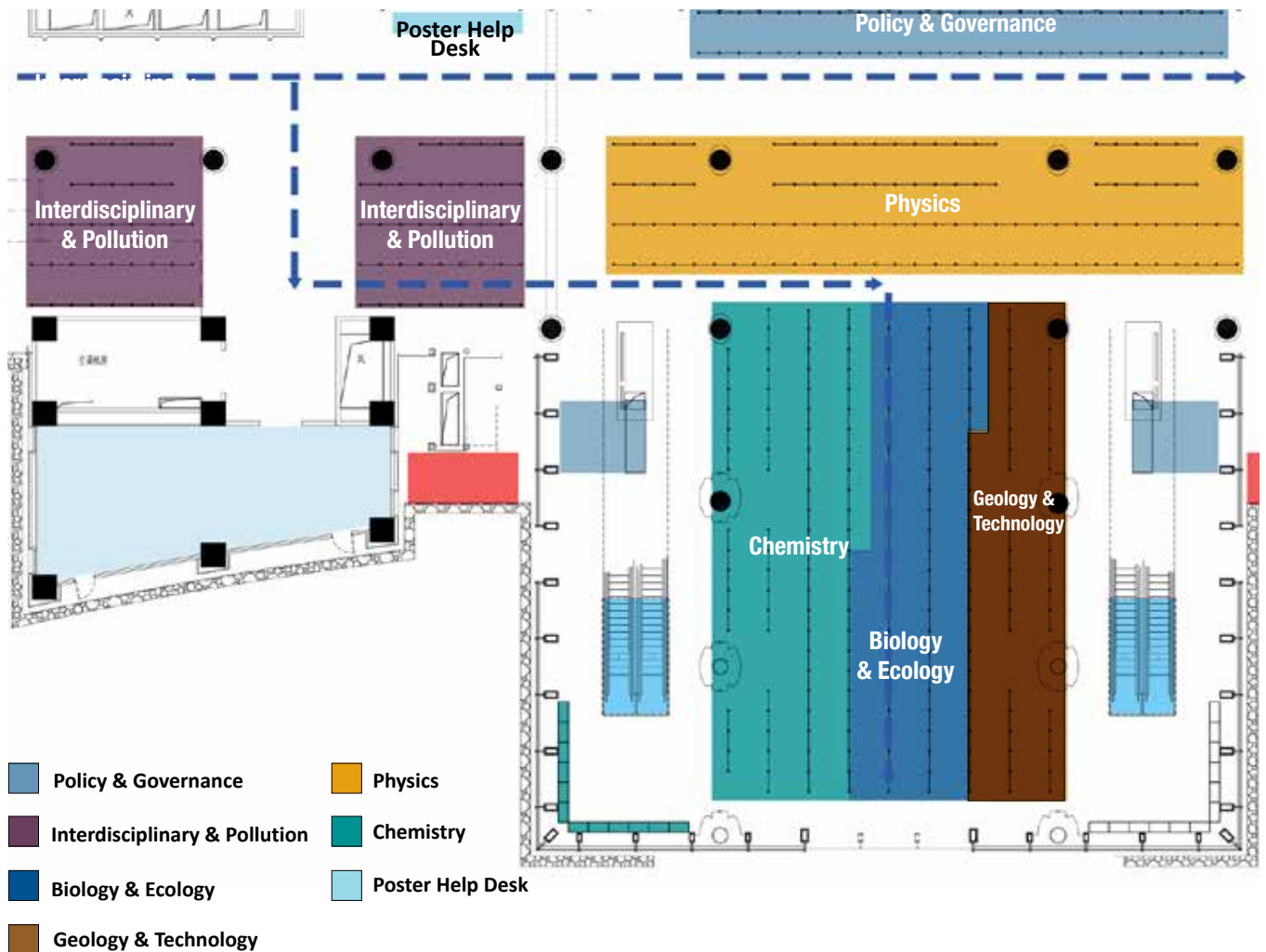
First Floor

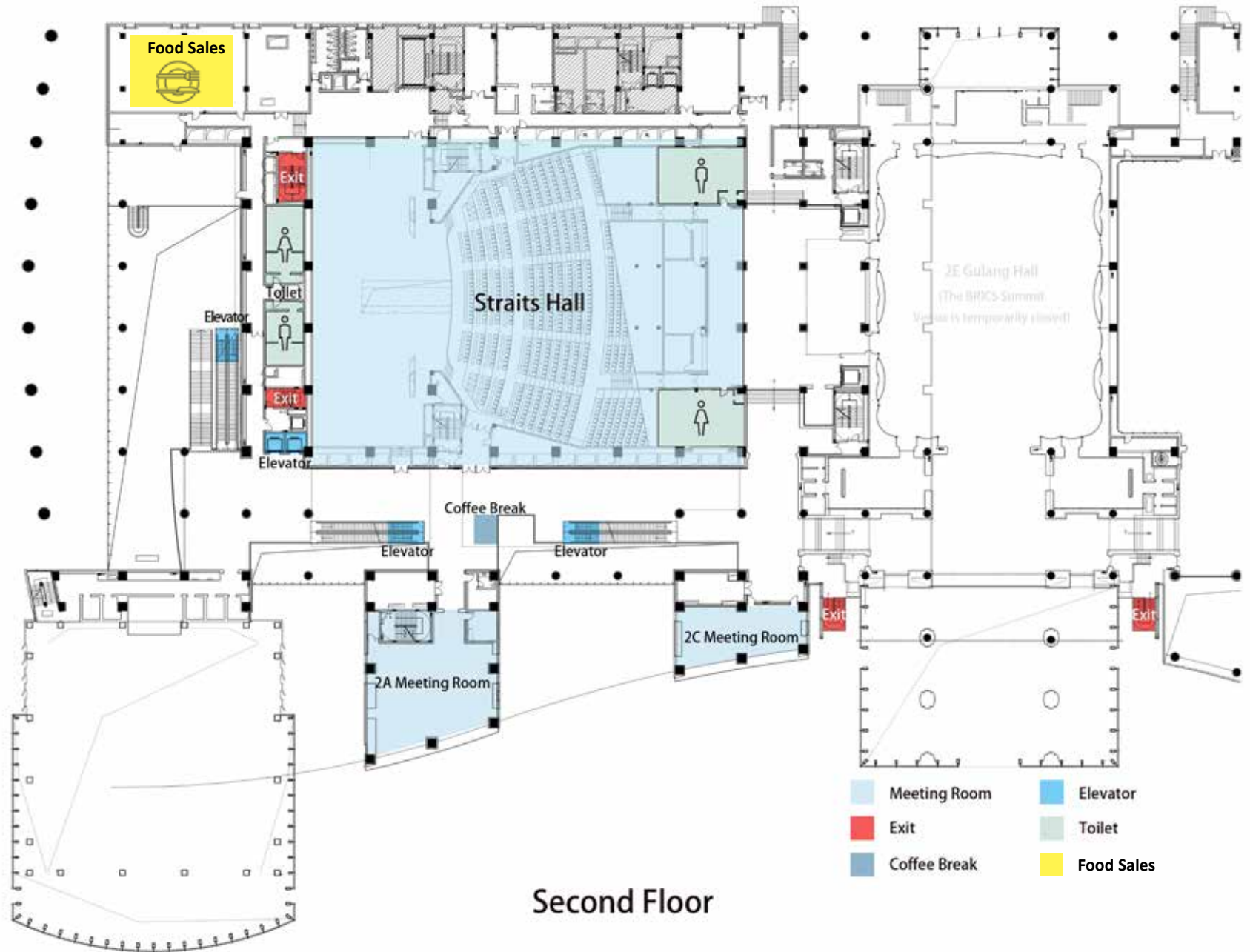


## Exhibition Hall

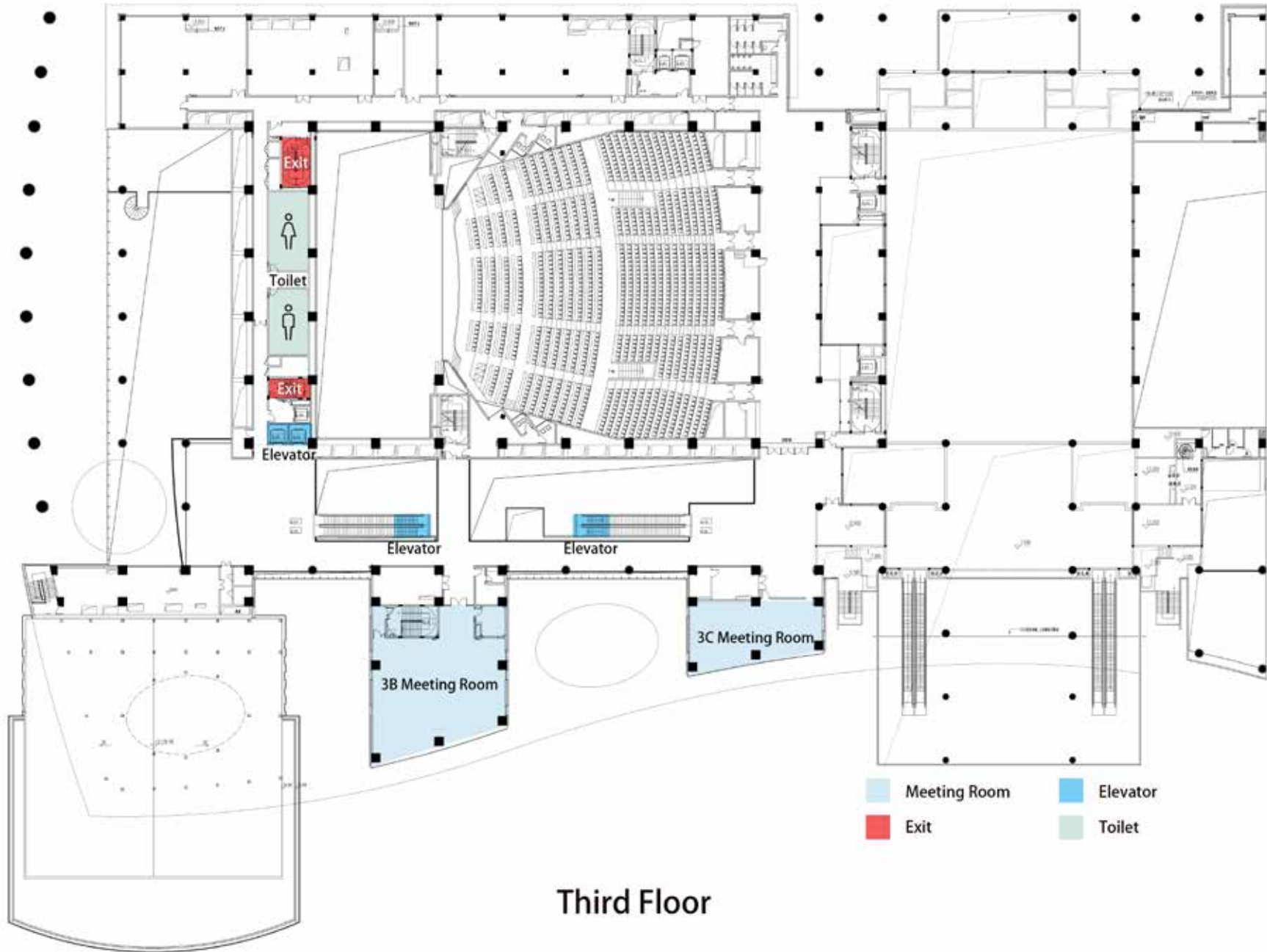
<b>B5</b>	MEL	<b>B17</b>	Ametek-Nu
<b>B6</b>	ASLO	<b>B18</b>	ThermoFisher Scientific
<b>B7</b>		<b>B19</b>	Anda Strong Technology Limited
<b>B8</b>	Sea & Stream	<b>B20</b>	Standards Scientific Instrument
<b>B9</b>		<b>B21</b>	SEE Foundation
<b>B10</b>	Xcube Technology	<b>B22</b>	Science China Press
<b>B11</b>	Sequoia Scientific	<b>B23</b>	Haiying Marine
<b>B12</b>	Far Ocean	<b>B24</b>	Elsevier
<b>B13</b>	Advances in Atmospheric Sciences & Atmospheric and Oceanic Science Letters	<b>B25</b>	Qingdao Watertools Technology Co., Ltd.
<b>B14</b>	MDPI	<b>B26</b>	IOCAS journals: Journal of Oceanology and Limnology, Oceanologia et Limnologia Sinica, Marine Sciences
<b>B15</b>	Beijing Cen-Sun Technology Development Co., Ltd.	<b>B27</b>	Institute of Creativity and Innovation, Xiamen University
<b>B16</b>	CLIVAR		

## Poster Hall





Second Floor



Third Floor

## Arrival in Xiamen

You can reach Xiamen by plane, high-speed train, or car, and the city has a very convenient public transportation system. Please refer to the detailed travel guide for more information: [https://melmeeting.xmu.edu.cn/xmas/Transportation\\_Guide.htm](https://melmeeting.xmu.edu.cn/xmas/Transportation_Guide.htm).

If this is your first-time visiting Xiamen or even China, we strongly recommend you take a taxi to the venue. Please note that e-payment (WeChat Pay or Alipay) is now popular and widely used in mainland China. Cash payment is also accepted, but it may take some effort to make change. Credit cards will not be accepted for the taxi payment. Thus, you are advised to get some RMB in smaller denominations. If you are a non-Chinese speaker, we recommend to print out or keep an image of the Chinese “Taxi Note” to communicate with the taxi driver, to avoid any inconvenience caused by language barriers.

**出租车搭乘卡**

**TAXI NOTE**

司机师傅您好，  
请您送我到厦门国际会议中心（南门），谢谢  
地址：厦门市思明区环岛东路 1693 号

Please take me to Xiamen International  
Conference Center-South Entrance

Address: No.1693, East Island Ring Road, Siming  
District, Xiamen, China

## Payment

While mobile payment methods are popular and convenient in mainland China, you are still advised to get some physical RMB. To access to mobile pay, please refer the details at: <https://melmeeting.xmu.edu.cn/xmas/Payment.htm>.

# Refreshments

*For those with food allergies, please pay attention to the labels next to the food trays.*

Date	Time	Event	Location
January 13	18:30 - 20:30	Icebreaker	3 <sup>rd</sup> Floor Grand Ballroom, InterContinental Xiamen
January 14	09:50 - 10:10	Coffee break	1 <sup>st</sup> & 2 <sup>nd</sup> Floor, Xiamen International Conference Center
January 15 – 17	10:00 - 10:20	Coffee break	1 <sup>st</sup> & 2 <sup>nd</sup> Floor, Xiamen International Conference Center
January 14 – 17	15:00 - 15:20	Coffee break	1 <sup>st</sup> & 2 <sup>nd</sup> Floor, Xiamen International Conference Center
January 14 – 16	16:50 - 18:30	Coffee break	Poster Hall, 1 <sup>st</sup> Floor, Xiamen International Conference Center

Lunch options are available for purchase on the second floor, outdoor area between 1B Meeting Room and 1C Meeting Room and 1<sup>st</sup> Floor Dining Area at the venue, and there are several nearby commercial areas close to the Xiamen International Conference Center. Within walking distance, you will find a variety of restaurants offering Chinese, Asian, and Western cuisines. For more details, please come to Registration desk or visit: <https://melmeeting.xmu.edu.cn/xmas/Dining.htm>

## Program

### Workshops

#### **Workshop 1 - Teaching Introductory Ocean and Environmental Sciences Courses: Methods to Engage ALL Students**

**Jan 15, 2025 16:50 ~ 18:30, 2C Meeting Room**

Introductory ocean and environmental science courses provide an excellent opportunity to prepare both majors and non-majors for thinking about some of the largest issues facing society such as climate change and energy needs. Introductory courses can also serve to recruit students from highly diverse backgrounds into the field. Often, these courses are large (>50 students). This workshop will provide strategies to overcome challenges of these large introductory courses while making your teaching engaging, relevant, and effective for all students. A special emphasis is placed on a few big concepts that can help organize examples and knowledge for students to grapple with future ocean and environmental issues. Come ready to share ideas, to think actively about teaching and learning, and to discuss what works and why.

#### **Workshop 2 - Ocean Science Education and Outreach: Broadening the Reach of Your Science**

**Jan 14, 2025 18:30 ~ 21:30, 1C Meeting Room**

This workshop will focus on helping participants develop ideas for effective education and outreach activities. Featuring active, hands-on learning, small group discussions, and guided inquiry, this workshop will include short presentations on exemplary projects in formal and informal education designed for K-12, undergraduate, graduate, and public audiences to stimulate ideas. Discussions of how people learn, how to assess the effectiveness of outreach activities, and how to develop projects that meet specific goals will help support project development. Participants are welcome to bring ideas that they would like to develop and share, and for which they would like to receive feedback.

#### **Workshop 3 - Coastal-SOS Thailand: Tackling Eutrophication-Hypoxia in the Upper Gulf of Thailand**

**Jan 15, 2025 18:30 ~ 21:30, 1C Meeting Room**

This proposed workshop aims to critically examine the intertwined challenges of eutrophication and hypoxia in the Upper Gulf of Thailand within the context of the United Nations Ocean Decade. Aligned with the core theme of XMAS 2025, "transformative science & technology for a sustainable ocean," the workshop will shed light on the COASTAL-SOS initiative and its efforts in Thailand. COASTAL-SOS, or "Coastal Zones Under Intensifying Human Activities and Changing Climate: A Regional Programme Integrating Science, Management and Society to Support Ocean Sustainability", is an endorsed project of the United Nations Ocean Decade. As part of the COASTAL-SOS initiative, COASTAL-SOS Thailand is embarking on comprehensive scientific study to examine the Upper Gulf of Thailand's environmental trajectory over the past decades and forecast its future directions for the next 20 years, in order to address the severe eutrophication and hypoxia issues plaguing the Upper Gulf of Thailand. With a specific focus on COASTAL-SOS Thailand, this workshop will present the results of a rigorous decades of study on the environmental trends in the Upper Gulf of Thailand, analyzing the current status, drivers, and consequences of the eutrophication and hypoxia challenge and identifying knowledge gap. Additionally, it will also share experiences from the past studies and success cases in China, gather perspectives from experts in the field, and build bridges across a wide perspective of actionable science. Last but not least, the discussion panel will discuss the direction and best practices for site studies, particularly in areas with limiting capacities and technology. Overall, by analyzing the historical trajectories and projecting future scenarios for the next two decades, the workshop aims to provide actionable insights into tackling the pressing issues of eutrophication and hypoxia in the Upper Gulf of Thailand. This workshop tackles eutrophication and hypoxia in the Upper Gulf of Thailand by fostering stakeholder collaboration and emphasizing science-based solutions. It will achieve this through knowledge sharing and gap identification to address areas lacking understanding. The workshop will then assess essential skills and resources needed to fulfill these knowledge needs, empowering participants for effective action. Successful management practices from other regions facing similar challenges will be explored to generate concrete recommendations for sustainable management in the Upper Gulf. Ultimately, the workshop aspires to catalyze transformative action towards a more resilient and sustainable ocean ecosystem through collaboration and knowledge exchange.

## Program

### **Workshop 4 - How to Write Effective Reviews and Improve Your Own Manuscript**

**Jan 15, 2025 12:00 ~ 13:15, 1G02 Meeting Room**

You have been asked to review a paper- perhaps for an ASLO journal, perhaps another journal. Writing effective paper reviews is an acquired skill that can be mastered. This workshop will provide some tips to write an informative and constructive review that will aid the editor and author. An effective review helps expedite the publication process, assists the editor in taking the right decision, and most of all it guides your peers on how to improve the presentation of their science. Many students are taught effective writing techniques, but not effective techniques for critique other people's work. Importantly, a reviewer does not need to be an expert in all aspects of a paper; it is OK to focus comments on one part (for example, the experimental design) without commenting on another part (for example, how the results were used in a model). Most importantly, is the problem or question being addressed clearly stated? Is the presentation of results logical? What have I learned from the paper? Reviews should be respectful, even when flaws, biases or errors need to be pointed out. ASLO is looking to expand its network of reviewers and this workshop will bring the experience of ASLO senior scientist and associate editors to help you become effective and valuable reviewers. Through the "best reviewer" award, ASLO thanks outstanding reviewers and highlights their contribution in L&O Bulletin.

### **Workshop 5 - What We Wish We'd Known: Tips About Writing and Publishing Your First Paper**

**Jan 16, 2025 12:00 ~ 13:15, 1E Harmony Hall**

Are you a student or early career researcher interested in publishing your first (or second, or third...) paper? Are you spending valuable time rewriting the same paragraph over and over again? Are you unsure where to submit or what to expect from the scientific publishing process? You're not alone! How many drafts are typical of an experienced writer? The answer in most cases is many! Each edit may be targeted at a particular aspect of the paper: are the conclusions supported by the data? is the presentation logical? is the paper free of grammatical errors? are all appropriate references cited? Did you know that many people write from the inside out? That is, starting with the methods and results, and only later winding up with an introduction and abstract. Feedback and reviews are an important part of the process and should serve to strengthen the paper, not discourage the author. This workshop will provide some tips and hints to help your craft a compelling and informative research paper and will introduce some author services such as language editing and other tools that are useful for authors of all career stages. Most importantly, writing can be fun- and a well written paper is bound to be read (and cited) more often!

### **Workshop 6 - Research Collaborations in the ASEAN Region: Sustainability of Marine Bioresources and Environments under Climate Change**

**Jan 14, 2025 16:50 ~ 18:30, 1G01 Meeting Room**

Collaborations on marine research in the Association of Southeast Asian Nations (ASEAN) region is critical for understanding and addressing the impact of climate change on the sustainability of marine bioresources and environments. Such endeavours support biodiversity conservation, sustainable resource management, and the development of adaptation strategies, particularly in light of the region's growing population. They also provide critical data for mitigating adverse effects, enhancing disaster resilience, and ensuring food security and economic stability for coastal communities. This workshop will showcase research examples and collect ideas for collaborative research within the ASEAN region, or with ASEAN nations, on the above theme. It also aims to identify gaps and actionable solutions for maintaining sustainable marine bioresources and healthy marine environments in the ASEAN region given the effects of climate change and human activities. Ultimately, this workshop will strengthen regional capacity, promote knowledge sharing, and foster effective climate change mitigation and adaptation strategies in the ASEAN region.

## Program

### Workshops

#### **Workshop 7 - Bridging Oceans: Asia-Africa International Early Career Scientists Workshop on Marine Science Collaboration**

**Jan 14, 2025 16:50 ~ 18:30, 3C Meeting Room**

We are excited to convene a diverse group of young scientists from across Asia and Africa for a collaborative and enriching experience. This gathering aims to foster connections and facilitate mutual understanding among these emerging leaders in the field of marine science. Participants will have the opportunity to introduce and discuss the advancements and challenges in marine science within their respective countries, providing a platform for knowledge exchange. Additionally, this event will serve as an avenue for the participants to share their unique learning experiences and insights gained during their studies in China. These discussions will not only highlight the academic and cultural aspects of their journey but also reflect on the innovative approaches and methodologies they have encountered. Furthermore, the gathering will focus on exploring potential avenues for future scientific collaborations. By identifying common interests and research goals, these young scientists can lay the groundwork for joint projects and partnerships that transcend geographical boundaries, ultimately contributing to the global advancement of marine science. We anticipate that this event will not only strengthen professional networks but also inspire new ideas and collaborations that will have a lasting impact on the scientific community.

#### **Workshop 8 - Marine Nitrogen Cycle in the Age of Climate Crisis: Identifying Knowledge Gaps and New Frontiers**

**Jan 16, 2025 16:50 ~ 19:20, 1D Tongwen Hall**

As the global climate crisis intensifies, scientists, stakeholders, and policymakers are increasingly looking to the ocean for solutions. Many proposed ocean-based climate mitigation strategies involve altering ocean productivity, the biological pump, and ecosystem structure, with the nitrogen cycle playing an important role. While our understanding of the marine nitrogen cycle and its interactions with other biogeochemical processes and the climate system has advanced significantly, critical knowledge gaps persist that may affect our ability to harness the ocean's potential to address the climate crisis. For example, uncertainties remain regarding carbon sequestration by anthropogenic nitrogen inputs in coastal oceans. In addition, manipulation of ocean productivity might lead to the expansion of low-oxygen zones and increased production of nitrous oxide, a potent greenhouse gas, etc. This special workshop will bring together a group of international experts to share their experiences and perspectives on how the marine nitrogen cycle can contribute to climate solutions, aiming to identify these knowledge gaps and explore new research frontiers.

## Program

### Town Halls

#### **Town Hall 1 - What is ASLO (Association for the Sciences of Limnology and Oceanography) and What Can It Do For you?**

**Jan 14, 2025 12:00 ~ 13:15, 1D Tongwen Hall**

ASLO is the only global society that has a mission to create, integrate and communicate knowledge across the full spectrum of aquatic sciences, and to advance public awareness and education about aquatic resources and research. ASLO is truly global, with >50% of its members outside of North America, spanning 60 countries. We share our science through publications, and we enjoy friendship and new connections fostered at conferences. In all, ASLO is people working, celebrating and sharing their science. ASLO is particularly well known for its excellent publications, Limnology and Oceanography, Limnology and Oceanography Letters, Limnology and Oceanography Methods, and the Limnology and Oceanography Bulletin. Each has a distinct purpose and focus, and each welcomes articles from all scientists; one does not need to be a society member to submit. ASLO is also dependent on reviewers and editors to ensure the highest quality submissions are published. ASLO is more than its publications and conferences. ASLO is a welcoming home to students and early career scientists. By highlighting the world of young investigators through our webinar series, and by providing support and networking opportunities for students and early career scientists, new mentoring and opportunities are provided. ASLO celebrates the accomplishments of its members through its awards and fellows programs. Awards are given to various people who have made significant contribution at various career stages and for various reasons. ASLO also offers publication honors, in the form of waived publication fees for authors who may be challenged by the cost of publication and/or language barriers. There are many other programs and opportunities for ASLO members to be involved. The beauty of a society is that members are diverse, in the countries from which they hail, the science that they pursue, but they come together for a common purpose. We at ASLO undertake the work we do because we care about our aquatic environments. We communicate with each other as colleagues, as scientists, and as friends. Our meetings are ideal times to reach out and make new connections. This session will review all the dimensions of ASLO, what it can do for you and how you may benefit from being a part of the ASLO family.

#### **Town Hall 2 - Regional Modelling for the East Asian Seas and Western Pacific Ocean: Experience and Perspective from MoNITOR and COASTAL-SOS**

**Jan 16, 2025 12:00 ~ 13:15, 1B Meeting Room**

This town hall on regional modelling for the East Asian seas and Western Pacific Ocean aligns perfectly with the main theme of XMAS 2025, transformative science & technology for a sustainable ocean. By leveraging advancements in digital technology, we aim to address critical challenges facing the coastal ecosystem in the region. Through modelling techniques, we seek to enhance our understanding of complex interactions between human activities, climate change, and ocean sustainability. The town hall will focus on two United Nations Ocean Decade endorsed projects, MoNITOR (“Mitigation of Natural Incidence Towards an increased Oceanic Resilience”) and COASTAL-SOS (“Coastal Zones Under Intensifying Human Activities and Changing Climate: A Regional Programme Integrating Science, Management and Society to Support Ocean Sustainability”). MoNITOR is dedicated to developing regional physical-biological model and operational forecasting systems for coastal regions along the Indian and western Pacific Ocean. COASTAL-SOS, focusing on the East Asian seas, aims to build a Digital Twin of the Ocean, serving as a science database and modelling platform for basic research and government decision-making. This town hall will showcase findings and implications of MoNITOR and COASTAL-SOS projects, highlighting innovative technologies and methodologies of regional modelling for the East Asian seas and Western Pacific Ocean. We will explore the development of coupled dynamic modelling capturing relationships between human activities, climate change, and coastal ecosystems in the East Asian seas and Western Pacific Ocean region. Based on these technological advancements, we will further discuss the potential of a coupled dynamic model in predicting coastal ecosystem changes and supporting informed decision-making. We welcome relevant researchers from various disciplines, to foster collaboration, inspire new ideas, and drive transformative solutions for a sustainable ocean in the coastal region.



## Program

### Events

#### Event 1 - How Can New Technology Assist Oceanographer?

**Jan 14, 2025 12:00 ~ 13:15, 2A Meeting Room**

This salon aims to provide young marine scientists with an opportunity to interact with renowned scholars. By exploring the development and application of emerging technologies, it helps young scholars understand advancements in the field of marine technology. Leveraging cutting-edge digital technologies, we are dedicated to building a healthier and more sustainable marine ecosystem. Through the application of intelligent monitoring, data analysis, and management systems, we can gain more precise insights into the state of marine ecosystems, allowing for the formulation of effective conservation measures. The integration of these technologies also offers new solutions for the sustainable use of marine resources, promoting the marine industry's development toward a green, low-carbon, and efficient direction. Through interdisciplinary exchanges, we foster the dissemination of technology across various fields, helping young scholars apply relevant technologies effectively in their research, stay informed about technological progress in the marine field, and plan their career paths more rationally.

#### Event 2 - Meet the Editors - Navigating the Path to Publication

**Jan 15, 2025 16:50 ~ 18:30, 2A Meeting Room**

This exclusive event offers an invaluable chance for early-career researchers, students, and emerging scientists to connect directly with journal editors and gain critical insights into the publication process. Attendees will receive expert guidance on essential topics such as selecting the most suitable journal for publication, crafting effective and well-formatted response letters to reviewers, leveraging AI tools ethically during the research, and the importance of upholding research integrity. The editors will also share insider perspectives on current trends in scientific hotspot and open sharing, helping participants stay ahead in their fields. This event is designed to equip attendees with actionable knowledge and skills to elevate the quality, impact, and reach of their research publications.

#### Event 3 - SOLAS China Youth Committee

**Jan 14, 2025 12:00 ~ 13:15, 1G01 Meeting Room**

This event features the launch of the SOLAS China Youth Science Committee, established under the Surface Ocean - Lower Atmosphere Study (SOLAS) – China initiative. The committee brings together a diverse group of young scientists across multiple disciplines to highlight the voices and perspectives of emerging scientific leaders in China. The goals are to coordinate and champion early career activities within the research area of SOLAS and to provide future generation scientists with networking and collaboration opportunities. This event will also discuss the challenges and opportunities in SOLAS research, and the vision and mission of the SOLAS China Youth Science Committee in bridging local and global SOLAS research.

#### Event 4 - Women in Science

**Jan 14, 2025 18:30 ~ 21:30, 1<sup>st</sup> Floor Dining Area**

*I can't think of a single reason why I want to be a surgeon. But I can think of a thousand reasons why I should quit. They make it hard on purpose. You either take that step forward, or turn around and walk away. I could quit. But here's the thing: I love the playing field.*

-- Grey's Anatomy 2005

While the ratio of female to male students in the field of ocean and environmental sciences was steadily increasing at all levels in the past decades, the number of female scientists stays low at higher ranks. How to make those female scientists stay on the field? This workshop aims to promote women initiative and involvement in the research of oceanography and environmental sciences. We are going to dialog in this workshop with graduate students, posdoc, junior and senior scientists on the topics on gender preference in admission and recruitment, academic policy of gender equality, the balance between family and work as well as the response to administrative and service activities.

## Program

### Events

#### Event 5 – Lightning Talk

**Jan 15, 2025 17:00 ~ 18:00, Lightning Talk Area**

**Jan 16, 2025 17:00 ~ 18:00, Lightning Talk Area**

The Lightning Talk Session offers a dynamic platform for ocean science researchers to present their work in a concise, engaging format. Spanning cutting-edge topics in physical, chemical, and biological oceanography, marine toxicology, and emerging fields such as ocean-based carbon removal, ocean governance, and sustainability, this session highlights the forefront of marine science innovation.

Through fast-paced, three-minute presentations, participants can distill complex research into compelling narratives that spark interdisciplinary conversations and foster collaboration. This session celebrates the diversity of ocean science and offers a vibrant, interactive space for sharing novel discoveries and ideas.

Join us for an inspiring series of short, impactful talks that showcase the creativity and innovation driving advancements in marine science!

#### Event 6 – Book Launch - “Marine Fishes of China and Adjacent Waters” (in Chinese Language)

**Jan 14, 2025, 16:50 ~ 18:30, 1B Meeting Room**

This event features the launch of the new book “Marine Fishes of China and Adjacent Waters”, edited by Min Liu, Kwang-Tsao Shao, Yvonne Sadovy de Mitcheson and Xiao Chen. This book includes three volumes, and 1943 marine fish species with color photographs (specimen and/or alive) available. The book also includes a definitive list of the total marine fish diversity — 4061 species — known from China’s coastal and adjacent waters. The large number of species represents a national challenge if we want to safeguard such biological wealth for posterity. The book highlights the research gaps, particularly on reproduction and habit. You will meet the editors and the publisher, who will accompany you in exploring the beauty of marine life and come to recognize the richness and vitality of marine fishes.

#### Event 7 – XMAS & ASLO Storytellers

The Storytellers Series is an ongoing activity led by the ASLO Education and Engagement Committee that aims to connect conference attendees with local communities. People of science attending the ASLO conference visit local schools and/or libraries and read aquatic science-themed books to children and talk about their careers. ASLO provides the books and donates them to the school or library after the event. The series has reached hundreds of students all over the world at various ASLO sponsored conferences.

As part of XMAS 2025, which is co-sponsored by ASLO, we are bringing this program to Xiamen. And we need your help!

This year, we're partnering with local schools to bring Storytellers to a whole new level! We will have Storyteller sessions from January 13-17, reaching children aged 4 -12. We'll be looking for volunteers to share some of their time with these curious students and speak about the joy of aquatic sciences. Everyone is welcome to volunteer – while most events will be in Chinese, we are also trying to arrange sessions with language schools, so English storytellers are also welcome!

## Program

### Oral Presentation Guidelines

- All oral presentations including the invited speakers are 15 minutes each.
- It is advised to leave 5 minutes for discussions and questions from the audiences.
- The time limit will be strictly enforced to facilitate movement between presentations.
- You should arrive at the session room 15 minutes before the start of your session and introduce yourself to the session chair(s).
- No audio or video recording is allowed in any of the session rooms during the symposium.
- To assure fluidity of the symposium, speakers are NOT allowed to connect their laptops to computer projectors. All speakers should upload their presentations at least one day in advance in the Speaker Ready Area, preferably upon registration. Please be sure your presentation is virus free before uploading.
- Only PowerPoint, KEYNOTE and PDF files will be accepted. Please notify the technical staff well in advance if your presentation is in a different format. To protect the intellectual property rights, your files will be erased after the symposium.

### Poster Presentation Guidelines

- The poster sessions are from 16:50 to 18:30 from January 14 to 16, 2025.
- Please be available at your poster during the poster session, especially on the date specified in your presentation acceptance notification, to introduce your work to the audience.
- Each poster will be assigned a location in the poster hall based on its presentation ID, which will be printed on the display board.
- Poster dimensions should not exceed 120 cm (height) and 90 cm (width), and should be in portrait orientation.
- The text should be readable from 1.5 meters (5 feet) away. Use a minimum font size of 20 points.
- Poster presenters are advised to set up their posters after on-site registration at the symposium.
- All posters should be removed by the presenters by 18:00 January 17.

### Language

English is the official language of the symposium. PowerPoint slides, posters and oral talks should be in English.





## Program Glance

January 16, 2025 (Thursday)

	1B	1C	1D	1E	1F-1	1G01	1G02	2A	2C	STRAITS HALL	3B	3C
8:30-10:00	<b>S24</b> - Estuaries and Coastal Environments	<b>S6</b> - Tropical Cyclone-Ocean Interactions	<b>S18</b> - Carbon and Nitrogen Cycles in Coastal Ecosystems	<b>S60</b> - Indian Ocean Dynamics		<b>S20</b> - Decadal Climate Variability	<b>S21</b> - Studying Ocean Dynamics with Autonomous Platforms	<b>S46</b> - Oceanic Mesoscales and Submesoscales	<b>S23</b> - Sea Level Rise	<b>S12</b> - Harmful Algal Blooms and a Healthy Ocean	<b>S32</b> - Digital Twins of the Ocean (DTO)	<b>S72</b> - Sea Turtle and Marine Mammal Conservation
10:00-10:20	COFFEE BREAK											
10:20-11:00	<b>KEYNOTE:</b> Nutrient Regulation of Biological Nitrogen Fixation in Present and Future Oceans - <b>Dalin Shi</b> /Xiamen University STRAITS HALL											
11:00-11:40	<b>KEYNOTE:</b> Ocean Meets Network Science: Exploring Extreme Ocean-Related Events via a Complex Network Approach - <b>Jürgen Kurths</b> /Potsdam Institute for Climate Impact Research STRAITS HALL											
12:00-13:15	<b>TH2</b> - Regional Modelling for the East Asian seas and Western Pacific Ocean					<b>WS5</b> - Tips About Writing and Publishing Your First Paper						
13:30-15:00	<b>S24</b> - Estuaries and Coastal Environments	<b>S6</b> - Tropical Cyclone-Ocean Interactions	<b>S18</b> - Carbon and Nitrogen Cycles in Coastal Ecosystems	<b>S60</b> - Indian Ocean Dynamics	<b>S70</b> - Internal Waves and Ocean Mixing	<b>S21</b> - Studying Ocean Dynamics with Autonomous Platforms	<b>S31</b> - Blue Carbon	<b>S46</b> - Oceanic Mesoscales and Submesoscales	<b>S23</b> - Sea Level Rise		<b>S33</b> - Ocean Negative Carbon Emissions	<b>S51</b> - Changing Coastal Environment
15:00-15:20	COFFEE BREAK											
15:20-16:50	<b>S24</b> - Estuaries and Coastal Environments	<b>S55</b> - Coastal Zone Evolution and Tipping Process	<b>S54</b> - Coastal Zone Remote Sensing	<b>S60</b> - Indian Ocean Dynamics	<b>S70</b> - Internal Waves and Ocean Mixing	<b>S67</b> - Early Career Ocean Professional Engagement	<b>S31</b> - Blue Carbon	<b>S46</b> - Oceanic Mesoscales and Submesoscales	<b>S29</b> - Marine Carbon Dioxide Removal (mCDR)		<b>S33</b> - Ocean Negative Carbon Emissions	<b>S51</b> - Changing Coastal Environment
16:50-18:30			<b>WS8</b> - Nitrogen and Climate Change				<b>POSTER SESSION</b> Presentations for S6, S14, S15, S17, S18, S19, S21, S23, S24, S26, S28, S29, S31, S33, S35, S40, S42, S46, S51, S54, S55, S57, S58, S59, S60, S63, S66, S67, S70 POSTER HALL				<b>LIGHTNING TALKS</b> LIGHTNING TALK AREA	

## Program Glance

January 17, 2025 (Friday)

	1B	1C	1D	1E	1F-1	1G01	1G02	2A	2C	STRAITS HALL	3B	3C
8:30-10:00	<b>S57</b> - Contaminants Across the Marine Continuum	<b>S55</b> - Coastal Zone Evolution and Tipping Process	<b>S54</b> - Coastal Zone Remote Sensing	<b>S17</b> - Coastal Hydrodynamics for a Sustainable Ocean	<b>S59</b> - Impacts of Climate and Biogeochemical Extremes	<b>S15</b> - Ocean Deoxygenation	<b>S42</b> - Deep-time Ocean and Climate Changes	<b>S46</b> - Ocean Mesoscales and Submesoscales	<b>S28</b> - The Ocean's Biological Carbon Pump		<b>S19</b> - Marine Plankton Ecosystem and Global Climate Change	<b>S63</b> - Blue Economy and New Quality Productive Forces
10:00-10:20	COFFEE BREAK											
10:20-11:50	<b>S57</b> - Contaminants Across the Marine Continuum	<b>S26</b> - Deep-Sea Microbial Ecology and Biogeochemistry	<b>S35</b> - Eddy Variability in the Ocean and Atmosphere	<b>S17</b> - Coastal Hydrodynamics for a Sustainable Ocean	<b>S59</b> - Impacts of Climate and Biogeochemical Extremes	<b>S15</b> - Ocean Deoxygenation	<b>S42</b> - Deep-time Ocean and Climate Changes	<b>S14</b> - Benthic Fauna	<b>S28</b> - The Ocean's Biological Carbon Pump		<b>S19</b> - Marine Plankton Ecosystem and Global Climate Change	<b>S63</b> - Blue Economy and New Quality Productive Forces
13:30-15:00		<b>S40</b> - Hydrothermal Geochemistry	<b>S35</b> - Eddy Variability in the Ocean and Atmosphere			<b>S15</b> - Ocean Deoxygenation	<b>S42</b> - Deep-time Ocean and Climate Changes	<b>S58</b> - Molecular Approaches to Oceanography	<b>S28</b> - The Ocean's Biological Carbon Pump	<b>S17</b> - Coastal Hydrodynamics for a Sustainable Ocean	<b>S19</b> - Marine Plankton Ecosystem and Global Climate Change	<b>S66</b> - Biomarkers in the Sea
15:00-15:20	COFFEE BREAK											
15:20-16:00	<b>KEYNOTE: Frontiers in Global Ocean and Earth Sciences and Cutting-edge Technologies - Jian LIN/Southern University of Science and Technology</b> STRAITS HALL											
16:00-17:00	Student Presentation Awards & Closing STRAITS HALL											

# Schedule

## January 13, 2025 (Monday)

Start	End	Activities
13:00	20:00	On-site Registration & Check-In
18:30	20:30	Icebreaker

## January 14, 2025 (Tuesday)

### Opening

08:15-08:30 Straits Hall

Start	End	Title
08:15	08:30	<a href="#">Welcome from the Chairs</a> Minhan Dai/Xiamen University (Chair of Scientific Advisory Committee) Feili Li/Xiamen University (Co-Chair of Local Organizing Committee)

### Keynote Speech

08:30-09:50 Straits Hall

Start	End	Title
08:30	09:10	<span style="background-color: #f0f0f0;">Keynote</span> <a href="#">Unlocking the Mysteries of the Ocean's Largest Reduced Carbon Reservoir</a> Lihini Aluwihare/University of California San Diego
09:10	09:50	<span style="background-color: #f0f0f0;">Keynote</span> <a href="#">The Ocean's Interior and Its Role in Carbon Cycling</a> Gerhard J. Herndl/University of Vienna

### Coffee Break

09:50-10:10

## S2-1 Session 2 - Arctic Ocean: Physical Processes and Their Effects on Climate and the Ecosystem

10:10-11:40 1G02 Meeting Room

Moderator: Peigen Lin/Shanghai Jiao Tong University

Start	End	ID	Title
10:10	10:25	1522	<span style="background-color: #fff9c4;">Invited</span> <a href="#">Vertical carbon export via frontal dynamics during an under-ice phytoplankton bloom in the Chukchi Sea</a> Robert Pickart/Woods Hole Oceanographic Institution
10:25	10:40	1544	<a href="#">Distribution and characteristics of the subsurface eddies in the Aleutian Basin, Bering Sea</a> Kun Zhang/Tongji University
10:40	10:55	1531	<a href="#">Sources and trajectories of sinking particles in the Chukchi Sea, Arctic</a> Hojung Kim/ KNU G-LAMP Project Group, Kyungpook National University
10:55	11:10	1538	<a href="#">Seasonal to interannual variations of the Beaufort shelfbreak jet using two decades of mooring data, 2002–2022</a> Xiufei Zhang/Shanghai Jiao Tong University
11:10	11:25	1533	<a href="#">Revisiting the hydrographic changes in the upper Beaufort Gyre during its relaxation</a> Wenli Zhong/Ocean University of China



Start	End	ID	Title
11:25	11:40	1541	<a href="#">Large river plumes and large-scale freshwater transport in the Eastern Arctic</a> Alexander Osadchiev/Moscow Institute of Physics and Technology, Shirshov Institute of Oceanology of Russian Academy of Sciences

### S3-1 Session 3 - The Nitrogen Cycle Towards a Sustainable Ocean: From Microbes to Global Biogeochemistry

10:10-11:40 2A Meeting Room

Moderator: Xianhui Wan/Xiamen University

Start	End	ID	Title
10:10	10:40	1222	<a href="#">Invited Nitrite oxidation and reduction dominate the nitrogen cycle of low oxygen waters</a> Bess Ward/Princeton University
10:40	10:55	796	<a href="#">Global nitrogen deposition embodied in international trade</a> Qiang Zhang/Tsinghua University
10:55	11:10	798	<a href="#">The marine nitrogen cycle under anthropogenic nitrogen input and climate variability</a> Jin-Ming Tang/ETH Zurich
11:10	11:25	819	<a href="#">Shifting from inventory-based monitoring towards process-oriented time-series studies</a> Qixing Ji/The Hong Kong University of Science and Technology (Guangzhou)
11:25	11:40	773	<a href="#">Modeling NOx reduction competition to identify thresholds of inorganic nitrogen retention and loss in aquatic ecosystems</a> Jemma Fadum/Carnegie Science

### S9-1 Session 9 - Global Ocean Changes: Regional Processes and Ecological Impacts

10:10-11:40 1D Tongwen Hall

Moderator: Jason Hall-Spencer/University of Plymouth

Start	End	ID	Title
10:10	10:25	861	<a href="#">Invited Controls on subsurface water pH and carbonate saturation state along the North American Atlantic Ocean margins</a> Wei-Jun Cai/University of Delaware
10:25	10:40	1318	<a href="#">Carbonate system variability in Southeast Asia's Sunda Shelf Sea: A 6-year time series from the Singapore Strait</a> Patrick Martin/Nanyang Technological University
10:40	10:55	1310	<a href="#">Eco-physiological response of macroalgae to ocean acidification: Results from an in-situ CO<sub>2</sub> seep</a> Di Zhang/Yantai University
10:55	11:10	899	<a href="#">Ocean acidification affects a wide range of taxa and gene functions on marine plastic biofilms</a> Dorsaf Kerfahi/Keimyung University
11:10	11:25	1314	<a href="#">Enhanced grazing on phytoplankton under elevated pCO<sub>2</sub> promotes DOC production and bacterial abundance: Insights from a mesocosm study</a> Xiangqi Yi/Jimei University
11:25	11:40	893	<a href="#">The response of biogenic dimethylated sulfur compounds to ocean acidification</a> Xuxu Gao/Ocean University of China, Shandong University

## S10-1 Session 10 - The Biogeochemistry of Trace Metals in a Changing Ocean

10:10-11:40 1B Meeting Room

Moderator: Mark James Hopwood/Department of Oceanography, Southern University of Science and Technology

Start	End	ID	Title
10:10	10:25	948	Properties of inflowing Pacific and Atlantic water govern Arctic Ocean mercury variability Sangwoo Eom/Gwangju Institute of Science and Technology
10:25	10:40	975	Distribution and influencing factor of manganese in Western North Pacific subtropical gyre Yichao Yang/Ocean University of China
10:40	10:55	952	Dissolved and particulate lead in the Northwest Pacific Chenjing Yang/Xiamen University
10:55	11:10	969	Trace element biogeochemistry in the Nordic Seas: Arctic and Atlantic Ocean waters govern micronutrient availability Yaqing Ruan/GEOMAR Helmholtz Centre for Ocean Research Kiel
11:10	11:25	945	Speciation distribution of trace metals in sea ice of Antarctic: A view from the monthly time series observation Jiahui Liu/Shanghai Jiao Tong University
11:25	11:40	973	<span style="border: 1px solid orange; padding: 2px;">Invite</span> Travelers in the Pacific: Exploring the journey of land-derived particles Kan Zhang/State Key Laboratory of Marine Environmental Science, Xiamen University

## S13-1 Session 13 - Coastal Environmental Ecology Under Anthropogenic Activities and Natural Changes

10:10-11:40 1E Harmony Hall

Moderator: Meilin Wu/South China Sea Institute of Oceanography, Chinese Academy of Sciences

Start	End	ID	Title
10:10	10:25	1542	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Climatic shifts and increased anthropogenic nitrogen footprints correlate with increased severity and duration of blooms of the toxic dinoflagellate <i>Karenia brevis</i> in the Gulf of Mexico over the past 50 years Patricia Glibert/University of Maryland Center for Environmental Science
10:25	10:40	1575	Long-term variation in phytoplankton communities under the impact of anthropogenic activities and climate change in the Southern Yellow Sea Shujin Guo/Institute of Oceanology, Chinese Academy of Sciences
10:40	10:55	1588	Biogeochemical characteristics and phytoplankton community diversity of the western North Equatorial Current Lina An/Xiamen University
10:55	11:10	1540	Algal-proaryotic associations maintain coral larval development under nitrate enrichments Haoya Tong/The University of Hong Kong
11:10	11:25	1570	Atmospheric nitrogen deposition and its contribution to phytoplankton biomass in the South Yellow Sea Yifei Luo/Ehime University
11:25	11:40	1549	Phenological characteristics of phytoplankton blooms in the South China Sea Mohd Ikmal Shafiq Rosli/Universiti Malaya

**S22-1 Session 22 - Impacts of Climate Change and Human Activity on Ocean Food Production**

10:10-11:40 1C Meeting Room

Moderator: Yunwei Dong/Ocean University of China

Start	End	ID	Title
10:10	10:25	915	<b>Invited</b> Strategies for sustaining eucaematoid aquaculture amidst climate change: Insights from a Malaysian case study Phaik Eem Lim/University of Malaya
10:25	10:40	912	<b>Invited</b> Neglected but potentially large roles of marine aquaculture in climate mitigation Minghao Zhuang/China Agricultural University
10:40	10:55	930	Incorporating multiple sources of knowledge when assessing species vulnerability to climate change Zhixin Zhang/South China Sea Institute of Oceanology, Chinese Academy of Sciences
10:55	11:10	929	Genetic basis of syngnathid unique camouflage and avenues for its conservation during global change Meng Qu/South China Sea Institute of Oceanology, Chinese Academy of Sciences
11:10	11:25	928	Reproducibility crisis in ocean acidification research: Causes, consequences and implications Jonathan Yu Sing Leung/Shantou University
11:25	11:40	927	Study on spatial planning for marine protected areas in the Bohai Sea based on ecosystem dynamics Runlong Sun/First Institute of Oceanography, Ministry of Natural Resources

**S25-1 Session 25 - IGAC-SOLAS: Chemistry and Physics at Surface Ocean and Lower Atmosphere**

10:10-11:40 Straits Hall

Moderator: Mei Zheng/Peking University

Start	End	ID	Title
10:10	10:25	1234	<b>Invited</b> Microplastics: All up in the air? Peter Liss/University of East Anglia
10:25	10:40	1616	<b>Invited</b> Climate-active trace gases: How air-sea interactions influence their production, consumption, and cycling between the atmosphere and ocean Christa Marandino/GEOMAR Helmholtz Centre for Ocean Research Kiel
10:40	10:55	1236	Understanding biological aerosols in the marine boundary layer: Observation, simulation and characterization Senchao Lai/South China University of Technology
10:55	11:10	1237	Quantifying the contribution of primary marine organic aerosol Wei Xu/Institute of Urban Environment, Chinese Academy of Sciences
11:10	11:25	1238	A missing source of secondary organic aerosols in marine atmospheres: Influence of phytoplankton emissions and anthropogenic pollutants Yujue Wang/Ocean University of China
11:25	11:40	1239	The remarkable but varied photosensitized oxidation by atmospheric humic-like substances (HULIS) at the air-water interface Ning Yang/Tianjin University

### S30-1 Session 30 - Planktonic and Microbial Contributions to Marine Ecosystems and Biogeochemistry: Insights from Observations, Experiments, and Modeling

10:10-11:40 2C Meeting Room

Moderator: Zhen Wu/Massachusetts Institute of Technology

Start	End	ID	Title
10:10	10:25	369	Macromolecular mechanisms of phytoplankton-derived detritus in oceanic nutrient cycling Moge Du/University of Rhode Island
10:25	10:40	370	Invited Cell flux models and their applications to diverse microbes Keisuke Inomura/University of Rhode Island
10:40	10:55	371	Ecological dynamics explain modular denitrification in the ocean Xin Sun/Carnegie Science at Stanford
10:55	11:10	372	The evolution of the plankton ecosystem in the Daya Bay Area: A model-based study Zeming Li/Xiamen University
11:10	11:25	373	Turbulence and plankton: Experimental studies Francois Schmitt/CNRS-LOG
11:25	11:40	374	Response of calcified and naked coccolithophores differs under elevated light intensity Qun Ma/The Hong Kong University of Science and Technology

### S61-1 Session 61 - Advancing Blue Food Futures Towards Ocean Conservation and Global Resilience

10:10-11:40 1G01 Meeting Room

Moderator: Ling Cao/Xiamen University

Start	End	ID	Title
10:10	10:25	847	Invited Opportunities and trade-offs for climate-smart blue foods in global food systems Michelle Tigchelaar/WorldFish
10:25	10:40	852	Diversity of seaweed along the east coast of peninsular Malaysia Swee Keong Yeap/Xiamen University Malaysia
10:40	10:55	878	Promoting ecological aquaculture with small-scale farmers Wenbo Zhang/Shanghai Ocean University
10:55	11:10	853	Investigating the effects of mangrove endophytes and aquatic bacteria on the quality of crops Yew Woh Hui/Xiamen University Malaysia
11:10	11:25	889	Towards sustainable blue futures: Potential of farming seaweeds under the nexus of global change Yue Liu/Shanghai Jiao Tong University
11:25	11:40	860	Joint environmental and social benefits of diversified aquaculture Quanli Wang/The University of Tokyo

### S65-1 Session 65 - Oceanic-Atmospheric Processes Over the Indian and Western Pacific Oceans

10:10-11:40 3B Meeting Room

Moderator: Dongxiao Wang/School of Marine Science, Sun Yat-sen University

Start	End	ID	Title
10:10	10:25	1183	Contrasts and mechanisms of propagation range of MJOs in tropical Western Pacific during El Niño and La Niña Lei Zhou/Shanghai Jiao Tong University

Start	End	ID	Title
10:25	10:40	1173	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Influence of SST-precipitation relationship over the equatorial Western Pacific on simulation of the Madden-Julian oscillation Jian Ling/Institute of Atmospheric Physics, Chinese Academy of Sciences
10:40	10:55	1171	Revisit Wyrtki's theory about the relationship between Indo-Pacific pressure gradient and ITF Shijian Hu/Institute of Oceanology, Chinese Academy of Sciences
10:55	11:10	1176	Impacts of Madden-Julian oscillation on Indonesian Throughflow in the Makassar Strait in Early 2017 Mingting Li/Southern Marine Science and Engineering Guangdong Laboratory (Zhuhai), Sun Yat-sen University
11:10	11:25	1184	Impacts of sea surface temperature gradient on Monsoon Intraseasonal Oscillation over Indian Ocean Baosheng Li/Sun Yat-sen University
11:25	11:40	1166	Changes of the SST seasonal cycle in a warmer North Pacific without ocean dynamical feedbacks Wen-Xiao Yu/Ocean University of China

### S69-1 Session 69 - Emerging Contaminants in the Marine Environment and Polar Region: Processes, Effects, and Health

10:10-11:40 3C Meeting Room

Moderator: Yuefei Ruan/City University of Hong Kong; Xinhong Wang/Xiamen University

Start	End	ID	Title
10:10	10:25	232	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Ocean optimism: Measurements for improving the environment Kenneth Leung/City University of Hong Kong
10:25	10:40	1037	Antibiotics in China Seas: Spatial distribution, risk assessment, and source tracking Donghui Wen/Peking University
10:40	10:55	1485	<span style="border: 1px solid gray; padding: 2px;">Withdrawn</span> Microplastics as vectors for polychlorinated biphenyl attachment in the urbanized tropical river estuary in Malaysia Sabiqah Tuan Anuar/Universiti Malaysia Terengganu
10:55	11:10	1029	The distribution, behavior and risks of emerging contaminants in the coastal zone Min Lv/ Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences
11:10	11:25	1035	<span style="border: 1px solid gray; padding: 2px;">Withdrawn</span> Addressing an imminent problem presented by a new class of pollutants: Chemicals with epigenetic and transgenerational effects Yi Yang/ State Key Laboratory of Marine Pollution, City University of Hong Kong
11:25	11:40	1043	Identification of novel iodinated polyfluoroalkyl ether acids and other emerging PFAS using non-targeted molecular network method Yuyan Ji/Shanghai Jiao Tong University

### Lunch Break

11:40-13:30

### EVENT 1 Event 1 - How Can New Technology Assist Oceanographers

12:00-13:15 2A Meeting Room

Moderator: Xinye Lin/Hunan University of Technology

### EVENT 3 Event 3 - SOLAS China Youth Science Committee

12:00-13:15 1G01 Meeting Room

Moderator: Yee Jun Tham/Sun Yat-sen University; Guanqiong Ye/Zhejiang University; Chao Zhang/Ocean University of China; Yuan Shen/Xiamen University

### TH 1 Town Hall 1 - What is ASLO (Association for the Sciences of Limnology and Oceanography) and What Can It Do for You?

12:00-13:15 1D Tongwen Hall

Moderator: Patricia Glibert/University of Maryland Center for Environmental Science

### S2-2 Session 2 - Arctic Ocean: Physical Processes and Their Effects on Climate and the Ecosystem

13:30-15:00 1G02 Meeting Room

Moderator: Peigen Lin/Shanghai Jiao Tong University

Start	End	ID	Title
13:30	13:45	1527	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Arctic sea ice – A source of bromine during polar night Katarina Abrahamsson/University of Gothenburg
13:45	14:00	1543	Arctic storm fingerprints on the oceanic mixed layer beneath sea ice Caili Liu/Ocean University of China
14:00	14:15	1550	Rapid summer Russian Arctic sea-ice loss enhances the risk of recent Eastern Siberian wildfires Binhe Luo/Beijing Normal University
14:15	14:30	1524	Sea ice decline in the Eastern Arctic results in expansion of the freshened surface layer Vladimir Rogozhin/Shirshov Institute of Oceanology of Russian Academy of Sciences, Marine Research Center at Lomonosov Moscow State University
14:30	14:45	1539	Arctic sea ice decline and surface current acceleration drive keystone zooplankton poleward Zhixuan Feng/East China Normal University
14:45	15:00	1528	Underestimation of Arctic marine access by the state-of-the-art climate models Qinghua Yang/Sun Yat-sen University, Southern Marine Science and Engineering Guangdong Laboratory (Zhuhai)

### S3-2 Session 3 - The Nitrogen Cycle Towards a Sustainable Ocean: From Microbes to Global Biogeochemistry

13:30-15:00 2A Meeting Room

Moderator: Xin Sun/Carnegie Science

Start	End	ID	Title
13:30	13:45	1621	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Dissolved N <sub>2</sub> O in the marginal seas of the Western North Pacific: Distribution, production and fluxes Gui-Ling Zhang/Ocean University of China
13:45	14:00	774	Ecological dynamics and interactions govern N <sub>2</sub> O production in oxygen-minimum-zones Daniel Mccoy/Carnegie Science
14:00	14:15	1622	Isotopomer labeling and oxygen dependence of hybrid nitrous oxide production Colette Kelly/Woods Hole Oceanographic Institution
14:15	14:30	822	The N <sub>2</sub> O source sink characteristic of the open Arctic Ocean Liyang Zhan/Third Institute of Oceanography, Ministry of Natural Resources

Start	End	ID	Title
14:30	14:45	843	Competition between diazotrophic nitrous oxide assimilation and dinitrogen fixation: The role of substrate availability Guangbo Li/The Hong Kong University of Science and Technology
14:45	15:00	811	Freshening of coastal wetlands weakens nitrogen removal and carbon preservation potential: The role of sulfate Ziyan Wang/The Chinese University of Hong Kong

### S8-1 Session 8 - Modern and Past Processes of Ocean-Atmosphere-Climate Interactions in the Low-Latitude Pacific and Indian Ocean

13:30-15:00 1C Meeting Room

Moderator: Mahyar Mohtadi/MARUM-Center for Marine Environmental Sciences, University of Bremen

Start	End	ID	Title
13:30	13:45	1110	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Late Quaternary orbital variations through upper-ocean heat and atmosphere moisture of the western tropical Pacific: Low-latitude forcing of climate cycles Haowen Dang/ State Key Laboratory of Marine Geology, Tongji University
13:45	14:00	1205	Is the upward release of intermediate ocean heat content a possible engine for low-latitude processes? Rong Xiang/South China Sea Institute of Oceanology, Chinese Academy of Sciences
14:00	14:15	1207	A contracting intertropical convergence zone during the early Heinrich Stadial 1 Yiping Yang/South China Sea Institute of Oceanology, Chinese Academy of Sciences
14:15	14:30	1210	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Surface and thermocline variability in the tropical Eastern Indian Ocean since the Last Glacial Maximum Henrik Sadatzki/MARUM - Center for Marine Environmental Sciences, University of Bremen
14:30	14:45	1121	Indian monsoon related changes in the surface hydrography and productivity in the Southeastern Arabian Sea over the last 15 kyr BP Kuhoo Madhav/Research Scholar BHU (Banaras Hindu University)
14:45	15:00	1214	Annual mean tropical precipitation variation in Asian-Australian monsoon domain over the past 118,000 years Chaoyong Hu/State Key Laboratory of Biogeology and Environmental Geology, China University of Geosciences

### S9-2 Session 9 - Global Ocean Changes: Regional Processes and Ecological Impacts

13:30-15:00 1F-1 Meeting Room

Moderator: Patrick Martin/Nanyang Technological University

Start	End	ID	Title
13:30	13:45	900	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Excess pCO <sub>2</sub> and carbonate system geochemistry in surface seawater of the Arabian Gulf James Murray/University of Washington
13:45	14:00	867	Ocean acidification in the Indonesian maritime continent Faisal Hamzah/Research Center for Oceanography, National Research and Innovation Agency
14:00	14:15	1316	Shift in algal blooms from micro- to macroalgae around China with increasing eutrophication and climate change Guang Gao/State Key Laboratory of Marine Environmental Science, College of Ocean and Earth Sciences, Xiamen University

Start	End	ID	Title
14:15	14:30	1317	Genetic and epigenetic mediated regulation of diatoms's response to exposure to marine heat waves (MHWs) and its impact on post MHWs warming combined with high CO <sub>2</sub> Xu Zhang/Xiamen University
14:30	14:45	881	Satiation of food boosts energy metabolism in mussels under ocean acidification and warming through hormone regulation Fahim Ullah Khan/Shanghai Ocean University
14:45	15:00	1315	Multi-Omics insights into marine diatoms adaptation and trophic transfer under high CO <sub>2</sub> and warming Peng Jin/Guangzhou University

## S10-2 Session 10 - The Biogeochemistry of Trace Metals in a Changing Ocean

13:30-15:00 1B Meeting Room

Moderator: Hilde Oliver/Woods Hole Oceanographic Institution

Start	End	ID	Title
13:30	13:45	954	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Enhanced aerosol-iron dissolution and its environmental impacts in the East Asian outflow regions during long-range transport of Asian dust Guochen Wang/Zhejiang University
13:45	14:00	955	Dust-associated Fe input in the western subtropical North Pacific Ocean Jiaxu Li/Xiamen University
14:00	14:15	976	Behaviors of dissolved trace elements associated with humic dissolved organic matters of different origins in coastal seawater Xiaoyu Chen/Seoul National University, Korea Institute of Ocean Science and Technology
14:15	14:30	968	Distribution and cycling of siderophores in the North and tropical East Pacific Oceans Jingxuan Li/Woods Hole Oceanographic Institution
14:30	14:45	953	A novel approach to investigate dissolved organic matter-trace metal interactions in the ocean Kechen Zhu/GEOMAR Helmholtz Centre for Ocean Research Kiel
14:45	15:00	956	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Incubation experiments characterize turbid glacier plumes as a major source of Mn and Co, and a minor source of Fe and Si, to seawater Zhu Xunchi/Hainan University

## S13-2 Session 13 - Coastal Environmental Ecology Under Anthropogenic Activities and Natural Changes

13:30-15:00 1E Harmony Hall

Moderator: Meilin Wu/South China Sea Institute of Oceanography, Chinese Academy of Sciences

Start	End	ID	Title
13:30	13:45	1573	Study on the distribution and regulation mechanism of pCO <sub>2</sub> in the Bohai Sea in summer Xue Deng/National Marine Environmental Monitoring Center
13:45	14:00	1572	Responses of greenhouse gases production to anthropogenic activities and the underlying microbial mechanisms in coastal environments: A case study of land-use change in mangrove wetlands Genmei Lin/Sun Yat-sen University



Start	End	ID	Title
14:00	14:15	1559	Revealing cascade effects of typhoon process on the eutrophication, algal bloom, hypoxia, and acidification in coastal water: Insights from online high frequency observations and model in Zhanjiang Bay Peng Zhang/Guangdong Ocean University
14:15	14:30	1556	Hypoxia-associated seasonal variations of zooplankton community in Jinhae Bay, South Korea: A case study through environmental DNA metabarcoding In-Cheol Yeo/Incheon National University
14:30	14:45	1548	The influence of saltwater intrusion on the biogeochemical behavior of phosphorus in estuarine sediments and pore water Jiaxin Li/Dalian University of Technology
14:45	15:00	1546	Oyster habitats enhance denitrification in a heavily degraded and polluted marine system Bayden D. Russell/The University of Hong Kong

### S25-2 Session 25 - IGAC-SOLAS: Chemistry and Physics at Surface Ocean and Lower Atmosphere

13:30-15:00 1D Tongwen Hall

Moderator: Mei Zheng/Peking University

Start	End	ID	Title
13:30	13:45	1240	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Reactive chlorine chemistry in marine atmosphere: Recent progress and future challenges Yee Jun Tham/Sun Yat-sen University
13:45	14:00	1241	Variations in cloud concentration nuclei related to continental air pollution control and maritime fuel regulation over the Northwest Pacific Ocean Xiaohong Yao/Ocean University of China, Frontiers Science Center for Deep Ocean Multispheres and Earth System, Laboratory for Marine Ecology and Environmental Sciences
14:00	14:15	1235	Marine aerosol, a good model for multiphase chemistry in the troposphere Lin Du/Shandong University
14:15	14:30	1244	Characteristics of ice nucleating particles in tropical marine atmospheres Wei Hu/Tianjin University
14:30	14:45	1245	Freeze-thaw process boosts penguin-derived NH <sub>3</sub> emissions and enhances climate-relevant particles formation in Antarctica Rong Tian/Third Institute of Oceanography
14:45	15:00	1246	Isoprene production and its driving factors in the Northwest Pacific Ocean Jian Wang/Ocean University of China

### S30-2 Session 30 - Planktonic and Microbial Contributions to Marine Ecosystems and Biogeochemistry: Insights from Observations, Experiments, and Modeling

13:30-15:00 2C Meeting Room

Moderator: Shanlin Wang/Xiamen University

Start	End	ID	Title
13:30	13:45	375	Ignited competition: Impact of bioactive extracellular compounds on organelle functions and photosynthetic systems in harmful algal blooms Huige Guo/Third Institute of Oceanography, Ministry of Natural Resources
13:45	14:00	376	Simulating ecosystem dynamics and marine biogeochemical cycles with multiple plankton functional types Jun Yu/University of California Irvine

Start	End	ID	Title
14:00	14:15	377	Modeling the coexistence of two marine picocyanobacteria under changing nitrogen availability Margaret Bernish/University of Rhode Island
14:15	14:30	379	Early phytoplankton community development in the Southern Ocean's marginal ice zone Amelia Deary/University of Cape Town
14:30	14:45	378	A two-layered ecosystem model for the stratified ocean Qi Zheng/University of Exeter
14:45	15:00	380	The impacts of ocean acidification on marine ecosystems: Simulated using a modified CESM Hanxi Tan/Xiamen University

## S61-2 Session 61 - Advancing Blue Food Futures Towards Ocean Conservation and Global Resilience

13:30-15:00 1G01 Meeting Room

Moderator: Ling Cao/Xiamen University

Start	End	ID	Title
13:30	13:45	864	Comparative analysis of rights-based fisheries management: Enhancing global fisheries sustainability through use rights optimization Xin Zhao/East China Normal University
13:45	14:00	862	Managing fisheries fleet capacity and structure through subsidy reform: Evidence from China Kaiwen Wang/University of California Santa Barbara
14:00	14:15	888	Food security risks arising from global aquatic food trade Ziyu Jiang/Shanghai Jiao Tong University
14:15	14:30	877	Supply chain effects of China's fast growing recreational fishery economy on greenhouse gas emissions Qilei Zhao/Xiamen University
14:30	14:45	886	The impact of deep-sea large yellow croaker cage aquaculture on the bacterial community in the adjacent marine environment Zou Chengxuan/ Shanghai Jiao Tong University
14:45	15:00	866	Carbon footprint of shrimp ( <i>Litopenaeus vannamei</i> ) cultured in recirculating aquaculture systems (RAS) in China Rong Fan/Yellow Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences

## S65-2 Session 65 - Oceanic-Atmospheric Processes Over the Indian and Western Pacific Oceans

13:30-15:00 3B Meeting Room

Moderator: Wei Yu/School of Marine Sciences, Sun Yat-sen University

Start	End	ID	Title
13:30	13:45	1185	<span style="border: 1px solid orange; padding: 2px;">Invited</span> El Niño phase transition by deforestation in the maritime continent Xin Wang/South China Sea Institute of Oceanology, Chinese Academy of Sciences
13:45	14:00	1179	The superposition of ENSO and PDO leads to stronger responses of phytoplankton in the western equatorial Pacific Xin Liu/Xiamen University
14:00	14:15	1180	Significant salinity effect in the central equatorial Pacific conducive to ENSO development and complexity Guan Cong/ Institute of Oceanology, Chinese Academy of Sciences

Start	End	ID	Title
14:15	14:30	1178	<a href="#">The Role of the Tropical Atlantic in Tropical Pacific Climate Variability</a> Yingying Zhao/Laoshan Laboratory
14:30	14:45	1182	<a href="#">Synchronous decadal climate variability in the Tropical Central Pacific and Tropical South Atlantic</a> Chao Liu/Yonsei University
14:45	15:00	1181	<a href="#">Relationship between the Pacific Meridional Mode and El Niño–Southern Oscillation on different timescales</a> Li Tao/Nanjing University of Information Science and Technology

### S69-2 Session 69 - Emerging Contaminants in the Marine Environment and Polar Region: Processes, Effects, and Health

13:30-15:00 3C Meeting Room

Moderator: Sabiqah Tuan Anuar/Universiti Malaysia Terengganu; Christelle Not/Earth Science, The University of Hong Kong

Start	End	ID	Title
13:30	13:45	1024	<a href="#">Invited River plumes as mediators of plastic litter in the ocean</a> Peter Zavialov/Shirshov Institute of Oceanology
13:45	14:00	1027	<a href="#">Microplastics in Hong Kong coastal ecosystems: Spatial and temporal patterns</a> Christelle Not/The University of Hong Kong, Earth Science, Swire Institute of Marine Science
14:00	14:15	1023	<a href="#">Dynamic fluctuations of microplastics on mangrove leaves are the combined effects of secreted salts and hydrodynamic factors</a> Ruiling Li/Guangxi University
14:15	14:30	1028	<a href="#">Marine litter transport in the Pearl River Estuary and its Impact on Hong Kong waters</a> Fengyuan Liang/The Hong Kong Polytechnic University
14:30	14:45	1034	<a href="#">Microplastics and associated emerging contaminants in marine fish</a> Xiaoxuan Yu/Xiamen University
14:45	15:00	1044	<a href="#">Clustering analysis of fate of microplastics with different sizes and evaluation of special representativeness of microplastic sampling methods using a non-hydrostatic particle tracking model</a> Ziqin Wang/The University of Tokyo

### Coffee Break

15:00-15:20

### S2-3 Session 2 - Arctic Ocean: Physical Processes and Their Effects on Climate and the Ecosystem

15:20-16:50 1G02 Meeting Room

Moderator: Peigen Lin/Shanghai Jiao Tong University

Start	End	ID	Title
15:20	15:35	1537	<a href="#">Invited Spatial and temporal variability in the onset of Arctic amplification</a> G.W.K. Moore/University of Toronto
15:35	15:50	1536	<a href="#">Entrainment of nutrients in a buoyant plume supports a summertime hotspot of marine productivity downstream of Sermeq Kujalleq, Greenland's largest glacier</a> Mark James Hopwood/Southern University of Science and Technology
15:50	16:05	1525	<a href="#">The biological response and net community production in the central Arctic</a> Yonghui Gao/Shanghai Jiao Tong University
16:05	16:20	1532	<a href="#">Tracing the temporal changes in water masses in the Southern Canada Basin and adjacent seas over the past decade using iodine-129</a> Yuanzhi Qi/The University of Tokyo

Start	End	ID	Title
16:20	16:35	1530	Carbon cycle in the polar oceans based on <sup>14</sup> C perspectives ( <sup>14</sup> C in the polar oceans) Ling Fang/Northwest University
16:35	16:50	1535	The effects of opening Arctic shipping routes on global maritime carbon emissions Yunlin Li/Peking University

### S3-3 Session 3 - The Nitrogen Cycle Towards a Sustainable Ocean: From Microbes to Global Biogeochemistry

15:20-16:50 2A Meeting Room

Moderator: Xin Sun/Carnegie Science

Start	End	ID	Title
15:20	15:35	807	Impacts of ocean acidification on cyanobacterial diazotrophs Haizheng Hong/Xiamen University
15:35	15:50	829	Large uncertainty in the rate of global marine N <sub>2</sub> fixation: A reanalysis Yangchun Xu/Xiamen University
15:50	16:05	834	Autotrophic dissolved organic phosphorus uptake stimulates subtropical gyre's nitrogen fixation Yuxin Shen/Xiamen University
16:05	16:20	985	A novel mechanism explaining the temperature dependence of marine unicellular nitrogen-fixing cyanobacteria Lixia Deng/The Hong Kong University of Science and Technology
16:20	16:35	981	Heterotrophic nitrogen fixation in the South China Sea Run Zhang/Xiamen University
16:35	16:50	837	Dissolved organic nitrogen in oligotrophic oceans regulated by nitrogen fixation Jinyu Yang/Xiamen University

### S8-2 Session 8 - Modern and Past Processes of Ocean-Atmosphere-Climate Interactions in the Low-Latitude Pacific and Indian Ocean

15:20-16:50 1C Meeting Room

Moderator: Groeneveld Jeroen/Institute of Oceanography, National Taiwan University

Start	End	ID	Title
15:20	15:35	1219	Multi-parameter approach to constrain paleoproductivity and phosphatization events using in ferromanganese crust over the past 23 myrs Yongzhi Chu/Shanghai Jiao Tong University, Second Institute of Oceanography, MNR
15:35	15:50	1216	Accurate, high-resolution chronology of cold-water bamboo corals in Northwest South China Sea Haozhuang Wang/Tongji University
15:50	16:05	1212	Reappraisal of the amount effect in the southern part of the East Asian monsoon region during the last deglaciation Yanming Ruan/Tongji University
16:05	16:20	1211	Temporal variations in nitrogen isotope offsets between bulk sediment and planktonic foraminifera in the South China Sea linked to redox changes over the past 500 kyr Li-Wei Zheng/Hainan University
16:20	16:35	1208	Geochemical records of changing redox conditions in the Western Philippine Sea over the past 26,000 years Thilina Munasinghe/National Sun Yat-sen University

Start	End	ID	Title
16:35	16:50	1215	South Asian monsoon induced upper ocean hydrographic changes in the Eastern Arabian Sea during the Middle Miocene Shixian Zou/Xiamen University

### S9-3 Session 9 - Global Ocean Changes: Regional Processes and Ecological Impacts

15:20-16:50 1F-1 Meeting Room

Moderator: Kunshan Gao/Xiamen University

Start	End	ID	Title
15:20	15:35	894	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Projection of iron speciation and bioavailability into the 21 <sup>st</sup> century. Martha Gledhill/Geomar Helmholtz Centre for Ocean Research Kiel
15:35	15:50	1313	Effects of temperature variation on copepod grazing, respiration, growth, and reproduction: A multigenerational experiment Weijia Chen/Xiamen University
15:50	16:05	887	Regional and local anthropogenic stressors independently impair the tropical seagrass <i>Halophila ovalis</i> at multiple levels of organisation Alissa Victoria Bass/The Chinese University of Hong Kong
16:05	16:20	859	First record of two tropical ghost crabs, <i>Ocypode sinensis</i> and <i>O. ceratophthalma</i> , in South Korea: Possible evidence of range expansion driven by climate change Dain Kim/Inha University
16:20	16:35	1312	Habitat-forming species: Buffers or amplifiers for symbiotic organisms in response to climate change? Junmei Qu/University of Chinese Academy of Sciences, Chinese Academy of Sciences Key Laboratory of Tropical Marine Bio-resources and Ecology, Guangdong Provincial Key Laboratory of Applied Marine Biology, South China Sea Institute of Oceanology, Chinese Academy of Sciences
16:35	16:50	865	Adaptive potential of a generalist coral species to eutrophication in highly urbanised environments Le Qin Choo/The Chinese University of Hong Kong

### S10-3 Session 10 - The Biogeochemistry of Trace Metals in a Changing Ocean

15:20-16:50 1B Meeting Room

Moderator: Ruifeng Zhang/Shanghai Jiao Tong University

Start	End	ID	Title
15:20	15:35	970	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Marine silicate weathering and its imprint on the oceanic neodymium cycle Jianghui Du/Peking University
15:35	15:50	982	The potential impacts of tephra diagenesis on Rb and Fe isotope systems in pelagic deep-sea sediments Xingchao Zhang/First Institute of Oceanography, Ministry of Natural Resources
15:50	16:05	978	Bottom-up control of dissolved Ba isotope distributions in the deep ocean Yang Yu/GEOMAR Helmholtz Centre for Ocean Research Kiel
16:05	16:20	958	Multiple controls on dissolved Ba isotope cycle in the Peruvian upwelling zone Guanghui Chen/Shanghai Jiao Tong University
16:20	16:35	974	Sources of mercury in the Mariana Trench since the last deglaciation Zhengwen Zhou/Ocean University of China
16:35	16:50	950	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Rapid burial and intense degradation of organic matter drives active silicate weathering in the sediments of the ocean's deepest realm Min Luo/Shanghai Ocean University

### S13-3 Session 13 - Coastal Environmental Ecology Under Anthropogenic Activities and Natural Changes

15:20-16:50 1E Harmony Hall

Moderator: Meilin Wu/South China Sea Institute of Oceanography, Chinese Academy of Sciences

Start	End	ID	Title
15:20	15:35	1571	Molecular-level insights into dissolved organic matter during <i>Ulva prolifera</i> degradation and its regulation on the environmental behaviour of the organic pollutant tributyl phosphate Xinxin Zhang/Ocean University of China
15:35	15:50	1566	Win some, lose some: Using standardised samplers to understand human impacts on coastal marine biodiversity Zhongyue Wan/The University of Hong Kong
15:50	16:05	1560	Summertime heat waves in the lower Chesapeake Bay and their effects on blooms of the harmful algae <i>Margalefidinium polykrikoides</i> Margaret Mulholland/Old Dominion University
16:05	16:20	1557	Spatiotemporal dynamics of subtropical coastal ecosystems: Integrated eDNA metabarcoding study of biodiversity and multi-trophic interactions Wenqian Xu/The Hong Kong University of Science and Technology
16:20	16:35	1555	<span style="border: 1px solid black; padding: 2px;">Withdrawn</span> Detection of marine non-indigenous species by RPA-CRISPR-Cas12a environmental DNA (eDNA) assay and its evaluation through field validation and comparative eDNA analyses Kyuhyeong Kim/Incheon National University
16:35	16:50	1551	Research on the driving path of bay environmental governance performance— based on fsQCA analysis of 17 blue bay remediation networks Hongbo Gong/Ningbo University

### S25-3 Session 25- IGAC-SOLAS: Chemistry and Physics at Surface Ocean and Lower Atmosphere

15:20-16:50 1D Tongwen Hall

Moderator: Mei Zheng/Peking University

Start	End	ID	Title
15:20	15:35	1249	<span style="border: 1px solid black; padding: 2px;">Invited</span> Chemical interaction of anthropogenic and oceanic emission and its impact on air quality in coastal cities Tao Wang/Department of Civil and Environmental Engineering, The Hong Kong Polytechnic University
15:35	15:50	1250	Impact of atmospheric deposition on marine ecosystem in the North Pacific Ocean Yuntao Wang/Second Institute of Oceanography, Ministry of Natural Resources
15:50	16:05	1251	Atmospheric deposition of source resolved trace elements and nitrogen into Asian Pacific Oceans Yan Zhang/Fudan University
16:05	16:20	1252	Effect of atmospheric deposition on bacterial community composition and metabolic function in the oligotrophic marine ecosystem Cui Guo/Ocean University of China
16:20	16:35	1253	Representation of iron aerosol size distributions is critical in evaluating atmospheric soluble iron input to the ocean Mingxu Liu/Peking University
16:35	16:50	1254	High-time-resolution source apportionment of iron in marine aerosol with multiple models Tianle Zhang/Peking University

**S56-1 Session 56 - Marine Microplastics: Novel Methods, Transportation Processes and Ecological Effects**

15:20-16:50 1G01 Meeting Room

Moderator: Minggang Cai/Xiamen University

Start	End	ID	Title
15:20	15:35	1440	<b>Invited</b> Transport of plastic debris from land to deep seas Eddy Zeng/South China University of Technology
15:35	15:50	1442	Investigating the fate of river-related microplastic pollution in the Northern Gulf of Mexico: A high-resolution model study Xing Zhou/Georgia Institute of Technology
15:50	16:05	1424	Cigarette butt pollution: From micron-scale to nano-scale microplastics Ruei-Feng Shiu/National Taiwan Ocean University
16:05	16:20	1445	Fate and mass budget of microplastic in the Beibu Gulf, the Northern South China Sea Zuhao Zhu/Fourth Institute of Oceanography, Ministry of Natural Resources
16:20	16:35	1427	Impact of global warming and human activities on microplastics from a deep learning perspective: A case study of the Taiwan Strait Cui Bowen/Xiamen University
16:35	16:50	1443	Interaction of plants with buried Styrofoams in coastal dunes Wenjun Zhao/East China Normal University

**S62-1 Session 62 - Assessment and Simulation of Coupled Human-Sea Systems**

15:20-16:50 2C Meeting Room

Moderator: Shaobin Li/College of the Environment and Ecology, Xiamen University

Start	End	ID	Title
15:20	15:35	1059	Assessing and simulating coupled human-sea systems: The multifaceted approach of UNESCO Initiatives Li Li/UNESCO Regional Office for East Asia
15:35	15:50	1046	<b>Invited</b> Eco-friendly approach on sand dune restoration in micro-tidal beach Effi Helmy Ariffin/Universiti Malaysia Terengganu
15:50	16:05	1052	Coastal ecosystem model coupling multiple human activities and its application Honghua Shi/Laoshan Laboratory
16:05	16:20	1058	Human-water relationship and harmony regulation Yihu Ji/Zhengzhou University
16:20	16:35	1055	Human-ocean coupling: A socio oceanography framework Chen Mingbao/Macau University of Science and Technology
16:35	16:50	1054	Perceptions about mangrove restoration and ecosystem services to inform ecosystem-based restoration in large Xiamen Bay, China Jie Su/The University of Tokyo

**S65-3 Session 65 - Oceanic-Atmospheric Processes Over the Indian and Western Pacific Oceans**

15:20-16:50 3B Meeting Room

Moderator: Shijian Hu/Institute of Oceanology, Chinese Academy of Sciences

Start	End	ID	Title
15:20	15:35	1168	<b>Invited</b> Cross-basin atmospheric rivers: Bridging clustered extremes and predictability from the Indian Ocean to the Western North Pacific Mengqian Lu/The Hong Kong University of Science and Technology

Start	End	ID	Title
15:35	15:50	1175	Impacts of internal atmospheric variability and external Indian and Pacific Ocean SST forcing on interannual variability of summer Western North Pacific subtropical high Marvin Xiang Ce Seow/The Hong Kong University of Science and Technology
15:50	16:05	1172	Modelling the seasonal overturning circulations in the South China Sea Fengchao Yao/Sun Yat-sen University
16:05	16:20	1174	Quantitative interpretation of the physical processes associated with the interannual variation of South Asian summer monsoon Wei Yu/School of Marine Sciences, Sun Yat-sen University
16:20	16:35	1170	Evolution and drivers of extreme subsurface marine heatwaves in the western tropical Pacific Ocean during 2008 and 2010–2011 Shihan Li/ Institute of Oceanology, Chinese Academy of Sciences
16:35	16:50	1177	Holocene changes in the relationship of the Asian monsoon and the Pacific Decadal Oscillation Haowen Fan/China University of Geosciences

### S69-3 Session 69 - Emerging Contaminants in the Marine Environment and Polar Region: Processes, Effects, and Health

15:20-16:50 3C Meeting Room

Moderators: Yuefei Ruan/City University of Hong Kong; Xinhong Wang/Xiamen University

Start	End	ID	Title
15:20	15:35	231	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Emerging organic contaminants in the polar regions: Long-range environmental transport and impact of climate change Zhiyong Xie/Institute of Coastal Environmental Chemistry, Helmholtz-Zentrum Hereon
15:35	15:50	1031	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Two abundant bioaccumulated halogenated compounds are natural products Li Xu/Woods Hole Oceanographic Institution
15:50	16:05	235	Spatiotemporal variations of emerging and legacy per- and poly-fluoroalkyl substances in the Bohai Sea Jianhui Tang/Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences
16:05	16:20	1039	Contrary study of polycyclic aromatic compounds, traditional and emerging per- and polyfluoroalkyl substances in typical coastal oceans Yuxin Ma/Shanghai Jiao Tong University
16:20	16:35	1022	Bioaccumulation assessment of emerging per- and polyfluoroalkyl substances in marine ecosystem: Field investigation and toxicokinetic experiment Yuefei Ruan/City University of Hong Kong
16:35	16:50	1025	Air-water exchange and water-particle partitioning of PAHs in the Beibu Gulf of the South China Sea: Revealing their potential regulatory mechanisms from machine learning approach Jingwen Shi/Xiamen University

### EVENT 6 Event 6 - Book Launch-"Marine Fishes of China and Adjacent Waters"

16:50-18:30 1B Meeting Room

Moderators: Min Liu/Xiamen University; Chang-qing Li/The Straits Publishing & Distributing Group



**WS 6 Workshop 6 - Research Collaborations in the ASEAN Region: Sustainability of Marine Bioresources and Environments Under Climate Change**

16:50-18:30 1G01 Meeting Room

Moderator: Wei Lun Ng/China-ASEAN College of Marine Sciences, Xiamen University Malaysia; Maizah M. Abdullah/Faculty of Science and Marine Environment, Universiti Malaysia Terengganu; Institute of Oceanography and Environment, Universiti Malaysia Terengganu; Lei Han/China-ASEAN College of Marine Sciences, Xiamen University Malaysia; Ya-Wei Luo/College of Ocean and Earth Sciences, Xiamen University

**WS 7 Workshop 7 - Bridging Oceans: Asia-Africa International Early Career Scientists Workshop on Marine Science Collaboration**

16:50-18:30 3C Meeting Room

Moderators: Yinzhao Wang/Shanghai Jiao Tong University; Yue Zheng/Xiamen University; Longhui Deng/Shanghai Jiao Tong University

**EVENT 4 Event 4 - Women in Science**

18:30-21:30 1<sup>st</sup> Floor Dining Area

Moderators: Huijie Xue/Xiamen University; Xiaoyi Yang/Xiamen University; Haizheng Hong/Xiamen University; Tiantian Tang/Xiamen University

**WS 2 Workshop 2 - Ocean Science Education and Outreach: Broadening the Reach of Your Science**

18:30-21:30 1C Meeting Room

Moderators: Robert Chen/University of Massachusetts Boston; Weiwei You/Xiamen University; Xin Lin/Xiamen University; Shaomin Gan/Xiamen University, 70.8 Media Lab

## January 15, 2025 (Wednesday)

### S3-4 Session 3 - The Nitrogen Cycle Towards a Sustainable Ocean: From Microbes to Global Biogeochemistry

08:30-10:00 2A Meeting Room

Moderator: Yao Zhang/Xiamen University

Start	End	ID	Title
08:30	08:45	772	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Unconditional nutrient niches for open ocean phytoplankton taxa Sarah Fawcett/University of Cape Town
08:45	09:00	987	The cycling of dissolved organic nitrogen - From coastal to deep ocean Yu Xin/Ocean University of China
09:00	09:15	983	Top-down control of marine nitrifiers by zooplankton in the West Pacific and South China Sea Silin Ni/Hainan university
09:15	09:30	801	Dominant anammox bacteria in the global oxygen deficient zones Rui Zhao/Massachusetts Institute of Technology
09:30	09:45	802	<i>Comammox nitrospira clade B</i> as a key nitrification driver in coastal Antarctica Ping Han/East China Normal University
09:45	10:00	793	<i>Candidatus nitrosomaritimum</i> , an overlooked genus of ammonia-oxidizing archaea in intertidal aquifers and marine sediments Ze Zhao/Westlake University

### S4-1 Session 4 - Extreme Weather and Climate Events: Observations and Modeling

08:30-10:00 1G02 Meeting Room

Moderator: Anmin Duan/School of Oceanography and Earth Sciences, Xiamen University

Start	End	ID	Title
08:30	08:45	581	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Impacts of PV-circulation crossing the boundaries of northern troposphere on climate variability and extreme weather Guoxiong Wu/Institute of Atmospheric Physics, Chinese Academy of Sciences
08:45	09:00	651	<span style="border: 1px solid gray; padding: 2px;">Withdrawn</span> The connection between sea surface temperature anomaly over tropical South Atlantic and ENSO and the associated impact on East Asian climate Yimin Liu/Institute of Atmospheric Physics, Chinese Academy of Sciences
09:00	09:15	639	Improving precipitation over East Asia in CAS-ESM by using the Multiscale Modeling Framework (MMF) Guangxing Lin/Xiamen University
09:15	09:30	635	Unveiling the drivers of Tropical Indian Ocean warming through machine learning-assisted surface wind Rongwang Zhang/South China Sea Institute of Oceanology, Chinese Academy of Sciences
09:30	09:45	640	Precipitation anomaly over the Tibetan Plateau affected by tropical sea-surface temperatures and mid-latitude atmospheric circulation in September Ping Zhang/ Institute of Atmospheric Physics, Chinese Academy of Sciences
09:45	10:00	642	Enhancing subseasonal surface air temperature and heat wave prediction skill in China by considering scale interaction within a deep learning model Jiehong Xie/Sun Yat-sen University

**S9-4 Session 9 - Global Ocean Changes: Regional Processes and Ecological Impacts**

08:30-10:00 1D Tongwen Hall

Moderator: Gao Guang/State Key Laboratory of Marine Environmental Science, College of Ocean and Earth Sciences, Xiamen University

Start	End	ID	Title
08:30	08:45	875	<b>Invited</b> The Eastern Mediterranean Sea Centre - An early-warning model-system for our future oceans: EMS Future Ocean REsearch (EMS FORE) Ilana Berman-Frank/Leon H. Charney School of Marine Sciences, University of Haifa
08:45	09:00	858	Ocean's largest chlorophyll-rich tongue is extending westward in 2002-2022 Shuaixing Peng/Xiamen University
09:00	09:15	870	Seasonal and interannual variations of nutrients in the Subei Shoal and their implication for the world's largest green tide Xiaona Chen/Ocean University of China
09:15	09:30	869	Climate change and human interference controlled the long-term changes in concentration and flux of dissolved silicate in the Yellow River Ke Wang/Ocean University of China
09:30	09:45	879	Quantifying the influence of the Greenland ice sheet on marine nutrient dynamics from a century of historical data 1920-2023 Xin Huang/Southern University of Science and Technology
09:45	10:00	851	Marine biotechnology in supporting sustainable environment and agriculture Kustiariyah Tarman/IPB University (Bogor Agricultural University)

**S13-4 Session 13 - Coastal Environmental Ecology Under Anthropogenic Activities and Natural Changes**

08:30-10:00 1E Harmony Hall

Moderator: Meilin Wu/South China Sea Institute of Oceanography, Chinese Academy of Sciences

Start	End	ID	Title
08:30	08:45	1545	<b>Invited</b> Asymmetric chlorophyll responses induced by internal waves near Dongsha Atoll in the South China Sea Meilin Wu/South China Sea Institute of Oceanology, Chinese Academy of Sciences
08:45	09:00	1564	Estimation and prediction of above ground biomass under the recent climate changes in the mangroves regions of Guangdong, China Muhammad Naveed/ South China Botanical Garden, Chinese Academy of Sciences
09:00	09:15	1558	A holistic exploration into the sociological status and by-catch in Sri Lanka's traditional beach seine (Ma-Dala) fisheries - A case study from Colombo, Sri Lanka Lelwala Gamage Sajani Jeewanthi/Département of Coastal and Marine Resource Management, Ocean University, Colombo 15, Sri Lanka, Young Zoologists
09:15	09:30	1554	Human impact on vegetation succession in Jiangsu Coast, China Zheng Gong/Hohai University
09:30	09:45	1553	Preliminary survey on the biotic factors influencing blood cockle culture in mangrove-fringed coastal ecosystems Hong Wooi Teoh/Xiamen University Malaysia
09:45	10:00	1552	Influence of oyster reefs on estuarine morphology Daoxudong Liu/The Hong Kong Polytechnic University

## S25-4 Session 25 - IGAC-SOLAS: Chemistry and Physics at Surface Ocean and Lower Atmosphere

08:30-10:00 Straits Hall

Moderator: Mei Zheng/Peking University

Start	End	ID	Title
08:30	08:45	1255	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Using radon as a tracer in oceanography and its in-situ measurement technology Bochao Xu/Ocean University of China
08:45	09:00	1256	Tracing the fate of dissolved organic carbon in the ocean Yuan Shen/Xiamen University
09:00	09:15	1257	Spatio-temporal coupling analysis and tipping points detection of China's coastal integrated land-human activity-ocean system Guanqiong Ye/Zhejiang University
09:15	09:30	1258	Tidal impact on modelling the circulation in the North Pacific Ocean and East Asian Marginal Seas Xun Gong/China University of Geosciences (Wuhan)
09:30	09:45	1259	The influence of meteorological conditions and internal gravity waves on carbon dioxide concentrations in the eastern part of Antarctica Ekaterina Marchuk/A.M.Obukhov Institute of Atmospheric Physics Russian Academy of Sciences
09:45	10:00	1260	Direct observational evidence of strong CO <sub>2</sub> uptake in the Southern Ocean Yuanxu Dong/Heidelberg University, GEOMAR

## S27-1 Session 27 - Coastal Environment Evolution: From the Past to the Future

08:30-10:00 1B Meeting Room

Moderator: Fengling Yu/Xiamen University

Start	End	ID	Title
08:30	08:45	7	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Sea-level science in Singapore and Southeast Asia Benjamin Horton/Nanyang Technological University, Earth Observatory of Singapore, Singapore; Asian School of the Environment
08:45	09:00	39	Far-field GIA process and an associated sea-level highstand for the mid-Holocene Lizhu Tian/Tianjin Center (North China Center of Geoscience Innovation), China Geological Survey, China Geological Survey Key Laboratory of Coast Geo-Environment, Tianjin Key Laboratory of Coast Geological Processes and Environmental Safety
09:00	09:15	86	Spatial variability in alkaline earth metals of surface sediments from the Jiulong River mouth, Southeast China: Implications for hydro-sedimentary dynamic processes and sedimentary facies Dadong Pan/Minnan Normal University
09:15	09:30	43	Robust decomposition of relative sea-level change signals through spatiotemporal hierarchical modeling Yucheng Lin/Rutgers University
09:30	09:45	87	Damming enhanced organic carbon burial in the Burullus Lagoon, Nile Delta Huawei Wang/Southern University of Science and Technology
09:45	10:00	90	Lability of riverine particulate organic carbon increased by water regulation and extreme drought-heatwave events Jixuan Lyu/Nanjing University

**S41-1 Session 41 - The Atlantic Meridional Overturning Circulation Variability and Its Climatic Impacts**

08:30-10:00 1G01 Meeting Room

Moderator: Yao Fu/Georgia Institute of Technology

Start	End	ID	Title
08:30	08:45	1159	<a href="#">Invited</a> Model biases and the role of resolution in representing AMOC Annalisa Bracco/Georgia Institute of Technology
08:45	09:00	1141	<a href="#">Invited</a> Advances in understanding the Atlantic Meridional Overturning Circulation variability using climate models Guillaume Gastineau/Sorbonne University
09:00	09:15	1148	The Eastern SPG as a key driver of AMOC downwelling on interannual to decadal timescales Yingjie Liu/Fudan University
09:15	09:30	1157	Climate response to Atlantic Meridional energy transport variations Weimin Jiang/Xiamen University
09:30	09:45	1163	Observation-based estimates of water mass transformation and formation in the Labrador Sea Sijia Zou/Xiamen University
09:45	10:00	1143	Topographic effects on seasonal variations in the lower limb of the Atlantic Meridional Overturning Circulation Lei Chen/Ocean University of China

**S45-1 Session 45 - New Data and Technologies Driven Insights into Marine Organic Matter Cycling**

08:30-10:00 2C Meeting Room

Moderator: Yuan Shen/Xiamen University

Start	End	ID	Title
08:30	08:45	582	<a href="#">Invited</a> A new approach to quantify and model interactive photochemical–microbial degradation of dissolved organic carbon Patrick Martin/Nanyang Technological University
08:45	09:00	583	Molecular characterization of coastal seawater dissolved organic matter by ultrahigh-resolution mass spectrometry: A photochemical study of the Tokyo Bay, Japan Shixi Wu/China University of Geosciences
09:00	09:15	584	Online LC-Orbitrap MS method for the rapid molecular characterization of dissolved organic matter Chen He/China University of Petroleum, Beijing
09:15	09:30	585	Predicting the deposition and preservation of terrestrial DOM in marine and estuarine sediments: A graph neural network approach Zekun Zhang/The Hong Kong University of Science and Technology
09:30	09:45	586	Molecular insights into the photochemical transformation of phytosterols: Formation of carboxylic acid derivatives characterized by FT-ICR mass spectrometry Guixue Song/Shandong University
09:45	10:00	587	Radiocarbon content in dissolved organic carbon in the Yellow Sea and the East China Sea Yeongjin Ryu/Seoul National University

### S48-1 Session 48 - Ecological and Socio-Economic Benefits of Marine Protected Areas

08:30-10:00 3B Meeting Room

Moderator: Kenneth Leung/City University of Hong Kong

Start	End	ID	Title
08:30	08:45	1083	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Building capacity and community involvement for sustainable marine protected areas in Anambas: A pathway to coastal community Resilience Isdahartati Isdahartati/Center for Coastal and Marine Resources Studies IPB University (Bogor Agricultural University)
08:45	09:00	1071	Enhancing marine protected areas: Harnessing ecological engineering for ecosystem restoration and habitat enrichment Kenneth Mei Yee Leung/City University of Hong Kong
09:00	09:15	1077	Checklist of marine fishes in the Beibu Gulf: Implications for resource protection and marine protected areas Yunrong Yan/Guangdong Ocean University
09:15	09:30	1072	Development and management system of marine protected areas in China Linlin Zhao/First Institute of Oceanography, Ministry of Natural Resources
09:30	09:45	1081	Impacts of climate change on the geographic distribution patterns of pelagic fishes in the Southern Ocean Daomin Peng/Ocean University of China
09:45	10:00	1078	Rezoning marine protected areas using a species-oriented approach supported by animal remote sensing Peng Zhao/Hainan University

### S49-1 Session 49 - Neogene Climate-Carbon Dynamics Associated with the Stepwise Closure of the Indonesian Seaway

08:30-10:00 1C Meeting Room

Moderator: Jun Tian/Tongji University

Start	End	ID	Title
08:30	08:45	53	<span style="border: 1px solid orange; padding: 2px;">Invited</span> The advances in Pliocene Model Intercomparison Project (PlioMIP) Zhongshi Zhang/Peking University
08:45	09:00	70	Development of currents on the northwest shelf of Australia through the Pliocene-Pleistocene period and their climatic and environmental impacts Yuxin He/School of Earth Sciences, Zhejiang University
09:00	09:15	67	Cenozoic Indo-Pacific warm pool controlled by both atmospheric CO <sub>2</sub> and paleogeography Ran Zhang/Institute of Atmospheric Physics, Chinese Academy of Sciences
09:15	09:30	69	Synergic variations of the South Pacific deep circulation and carbon reservoir during the late Pliocene intensification of the Northern Hemisphere Glaciation Jun Tian/Tongji University
09:30	09:45	56	Obliquity pacing of deep Pacific carbonate chemistry during the Plio-Pleistocene Bingbin Qin/First Institute of Oceanography, Ministry of Natural Resources
09:45	10:00	55	Inter-basin coupling between the Tropical Pacific and Southeast Indian Ocean: The warm pool dipole Lei Zhang/South China Sea Institute of Oceanology, Chinese Academy of Sciences

**S56-2 Session 56 - Marine Microplastics: Novel Methods, Transportation Processes and Ecological Effects**

08:30-10:00 3C Meeting Room

Moderator: Minggang Cai/Xiamen University

Start	End	ID	Title
08:30	08:45	1441	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Atmospheric transport of microplastics from land to sea is inefficient: Evidence from multimedia observations Xiangrong Xu/Guangxi University
08:45	09:00	1428	<a href="#">Sinking behavior of biofilm-covered microplastics with irregular shape: Numerical simulation and experimental validation</a> George Kapellos/Massachusetts Institute of Technology
09:00	09:15	1435	<a href="#">Tire wear particles pollution on driving school grounds in a coastal city associated with potential risks</a> Zhuanxi Luo/Huaqiao University
09:15	09:30	1439	<span style="border: 1px solid gray; padding: 2px;">Withdrawn</span> Mechanism of desorption of benzo[a]pyrene from polyethylene in marine environment: role of the biofilm formation Yongzheng Ma/Tianjin University
09:30	09:45	1432	<a href="#">Polypropylene vs polylactic acid: Longitudinal study on in-situ marine plastic degradation and biofilm dynamic</a> Huimin You/Xiamen university
09:45	10:00	1444	<a href="#">Humic acid modulates the toxicity of differentially charged polystyrene nanoplastics to freshwater microalgae (<i>Chlorella vulgaris</i>)</a> Koilpitchai Gopi/Shantou University

JAN 15 (WED)

**Coffee Break**

10:00-10:20

**Keynote Speech**

10:20-11:40 Straits Hall

Start	End	Title
10:20	11:00	<span style="border: 1px solid purple; padding: 2px;">Keynote</span> <a href="#">The Ocean and Human Health Nexus: Linkages from Global Challenges to Abyssal Fish and Biomedical Insight</a> John Stegeman/Woods Hole Oceanographic Institution
11:00	11:40	<span style="border: 1px solid purple; padding: 2px;">Keynote</span> <a href="#">Blue Foods: Bringing Fisheries and Aquaculture Into Food System Policymaking</a> James Leape/Stanford University

**Lunch Break**

11:40~13:30

**WS 4 Workshop 4 - How to Write Effective Reviews and Improve Your Own Manuscript**

12:00-13:15 1G02 Meeting Room

Moderators: Mina Bizic/Technical University of Berlin; Pat Glibert/University of Maryland, Center for Environmental Science; Bob Chen/University of Massachusetts Boston

## S4-2 Session 4 - Extreme Weather and Climate Events: Observations and Modeling

13:30-15:00 1G02 Meeting Room

Moderator: Murong Zhang/State Key Laboratory of Marine Environmental Science, Xiamen University

Start	End	ID	Title
13:30	13:45	643	<a href="#">Invited</a> A nonlinear multi-scale interaction theory of atmospheric blocking: Potential vorticity gradient as a bridge from climate change to weather extremes Dehai Luo/Institute of Atmospheric Physics, Chinese Academy of Sciences
13:45	14:00	645	<a href="#">Invited</a> Linking weather and climate dynamics in extreme precipitation Ji Nie/Peking University
14:00	14:15	632	Intensification of mesoscale convective systems in the East Asian rainband over the past two decades Puxi Li/Chinese Academy of Meteorological Sciences, China Meteorological Administration
14:15	14:30	652	Linkage between the tropical SST forcings and the surface air temperature over mid-high latitudes of Eurasia during boreal spring: A new perspective of potential vorticity circulation Chen Sheng/ Institute of Atmospheric Physics, Chinese Academy of Sciences
14:30	14:45	650	The impact of climate change on extreme weather events based on a high-resolution Earth system model Yang Gao/Ocean University of China
14:45	15:00	648	Landfalling severe typhoons in South China and the ensemble seasonal forecasting of typhoon frequency using machine learning algorithms Zhixiang Xiao/Nanning Normal University

## S12-1 Session 12 - Alleviating the Impact of Emerging Harmful Algal Blooms (HABs) to Coastal Ecosystems and Seafood Safety for a Sustainable and Healthy Ocean

13:30-15:00 2A Meeting Room

Moderator: Po Teen Lim/University of Malaya

Start	End	ID	Title
13:30	13:45	9	<a href="#">Invited</a> Morphology and phylogeny of kareniacean dinoflagellates found in a cold-water bloom of <i>Karenia selliformis</i> along the Eastern Hokkaido, Japan in 2021 Mitsunori Iwataki/The University of Tokyo
13:45	14:00	72	Physical drivers of <i>Noctiluca scintillans</i> (Dinophyceae) blooms outbreak in the Northern Taiwan Strait Haifeng Gu/Third Institute of Oceanography, Ministry of Natural Resources
14:00	14:15	74	An overview of harmful algal blooms in Hong Kong Chun-kit Kwok/Agriculture, Fisheries and Conservation Department, HKSAR Government
14:15	14:30	77	Symbiotic bacteria of <i>Phaeocystis globosa</i> exhibit potential for controlling harmful algal blooms Yuting Zhou/College of Environmental Science and Engineering, Ocean University of China
14:30	14:45	160	Broaden sighting into the biodiversity sources, presence and transfer process of domoic acid in subtropical area of Pearl River Estuary, the South China Sea Yang Liu/South China Sea Institute of Oceanology, Chinese Academy of Sciences
14:45	15:00	157	<a href="#">Invited</a> Unraveling the dynamics of <i>Alexandrium minutum</i> blooms: Integrating metabarcoding and machine learning in a semi-enclosed tropical coastal lagoon (Malaysia, South China Sea) Kieng Soon Hii/Institute of Ocean and Earth Sciences, Universiti Malaya



**S25-5 Session 25 - IGAC-SOLAS: Chemistry and Physics at Surface Ocean and Lower Atmosphere**

13:30-15:00 1D Tongwen Hall

Moderator: Mei Zheng/Peking University

Start	End	ID	Title
13:30	13:45	1261	<b>Invited</b> Black carbon (BC) and brown carbon (BrC) over South China Sea and the Eastern Indian Ocean Gan Zhang/Guangzhou Institute of Geochemistry, Chinese Academy of Science
13:45	14:00	1262	Fractional change of scattering and absorbing aerosols contributes to Northern Hemisphere Hadley Circulation expansion Li Jing/Peking University
14:00	14:15	1263	Development of a coupled atmosphere-ocean radiative transfer model and its application in the satellite remote sensing Chong Shi/Aerospace Information Research Institute, Chinese Academy of Sciences
14:15	14:30	1264	Observational evidence of brown carbon photobleaching in urban atmosphere at molecular level Zhijun Wu/Peking University
14:30	14:45	1265	Compositions, sources, and formation processes of atmospheric aerosols in the marine atmosphere of coastal China Kan Huang/Fudan University
14:45	15:00	1266	Characteristics, sources and marine effects of atmospheric organic aerosols in coastal areas Caiqing Yan/Shandong University

**S27-2 Session 27 - Coastal Environment Evolution: From the Past to the Future**

13:30-15:00 1B Meeting Room

Moderator: Tanghua Li/Nanyang Technological University

Start	End	ID	Title
13:30	13:45	71	<b>Invited</b> Productivity and upwelling changes in the Northwest Pacific over the last 550,000 years Zhengquan Yao/First Institute of Oceanography, Ministry of Natural Resources
13:45	14:00	68	Cascading erosion in the tide-dominated Changjiang Delta and its distal mud disclosed by repeating radionuclide measurements Daidu Fan/Tongji University
14:00	14:15	60	The Stone Living Lab: Promoting nature-based approaches for shoreline design as sea-level rises in Boston Harbor and beyond Robert Chen/University of Massachusetts Boston
14:15	14:30	63	Variations in water mass interaction and depositional dynamic effects outside the Yangtze Estuary since the middle Holocene Baocheng Zhao/Shanghai Institute of Natural Resources Survey and Utilization
14:30	14:45	91	Anthropogenic eutrophication and stratification strength control hypoxia in the Yangtze Estuary Hui Sheng/Nanjing University
14:45	15:00	38	Spatial and temporal variability of Holocene relative sea level along the South China coast Howard Yu/The University of Hong Kong

### S32-1 Session 32 - Digital Twins of the Ocean (DTO) and Its Applications

13:30-15:00 3C Meeting Room

Moderator: Joanna Staneva/Helmholtz-Zentrum Hereon, Germany

Start	End	ID	Title
13:30	13:45	1474	Advancing marine sustainability and the blue economy through digital twin technology Joanna Staneva/Helmholtz-Zentrum Hereon
13:45	14:00	1450	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Fugro's Digital Coastal Zone Management Tool—SmartCoast—applied to the monitoring of climate change in the Torres Straits with applications to mangrove evaluation and monitoring Paul Seaton/Fugro
14:00	14:15	1455	Development of the Digital Twin of Estuarine and Coastal System (DTEC) Zhong Peng/East China Normal University
14:15	14:30	1459	Application demonstration of a digital twin of the ocean in Xiamen Bay Qiang Deng/Xiamen University
14:30	14:45	1452	The application cases of digital twins in geosciences Jin Qi/Zhejiang University
14:45	15:00	1465	Techniques for the acquisition of ecosystem-based management information Wen-Miin Tian/National Sun Yat-sen University (retired)

### S41-2 Session 41 - The Atlantic Meridional Overturning Circulation Variability and Its Climatic Impacts

13:30-15:00 1G01 Meeting Room

Moderator: Yao Fu/Georgia Institute of Technology

Start	End	ID	Title
13:30	13:45	1144	Impact of Atlantic subtropical salinification on the Atlantic Meridional Overturning Circulation Maofeng Liu/Peking University
13:45	14:00	1146	Self-sustained multicentennial oscillation of the Atlantic Meridional Overturning Circulation in two-hemisphere box models Zhou Xiangying/Fudan University
14:00	14:15	1147	Radiocarbon evidence of a North Atlantic intermediate water reconfiguration between the 1960s and 1980s Qian Liu/Nanjing Institute of Geology and Paleontology, Chinese Academy of Sciences
14:15	14:30	1145	Ocean warming acceleration in Atlantic tied to the changes in ocean heat transport Yuying Pan/Institute of Atmospheric Physics, Chinese Academy of Sciences
14:30	14:45	1139	The role of rising Asian aerosol emissions in shaping the North Atlantic warming hole Fukai Liu/Ocean University of China
14:45	15:00	1164	Transient overturning changes cause global upper-ocean nutrient decline in a warming climate Shantong Sun/Laoshan Laboratory

**S44-1 Session 44 - Western Boundary Currents, Eddies and Their Impacts on Multi-disciplinary Aspects**

13:30-15:00 1E Harmony Hall

Moderator: Huizan Wang/National University of Defense Technology

Start	End	ID	Title
13:30	13:45	217	<b>Invited</b> Dynamics of interannual eddy kinetic energy modulations in a western boundary current Junde Li/Hohai University
13:45	14:00	213	Seasonal variability of eddy kinetic energy in the greater Agulhas Current system Mengmeng Li/Institute of Oceanology, Chinese Academy of Sciences
14:00	14:15	208	Dynamics of Kuroshio separation and associated eddy formation and instability off Southern Japan Yongkang Yuan/The Hong Kong University of Science and Technology
14:15	14:30	220	The rapidly weakening subsurface western boundary currents in the Northern Hemisphere under global warming Jinzhuo Cai/Ocean University of China
14:30	14:45	219	Dynamical interactions between the Kuroshio Large Meander and the coastal circulation off the south coast of Japan Tingting Yan/Atmosphere and Ocean Research Institute, The University of Tokyo
14:45	15:00	223	The anomalous relationship between the origin Kuroshio transport and ENSO during 1993-2020 on interannual scale Li Jiazhen/Institute of Oceanology, Chinese Academy of Sciences

**S45-2 Session 45 - New Data and Technologies Driven Insights into Marine Organic Matter Cycling**

13:30-15:00 2C Meeting Room

Moderator: Yuan Shen/Xiamen University

Start	End	ID	Title
13:30	13:45	588	<b>Invited</b> Heterogeneous sources, distribution, and removal processes of dissolved black carbon from East China Sea shelf to open ocean of Northwest Pacific Yunping Xu/Shanghai Ocean University
13:45	14:00	589	Tracking the continuous production and fate of bacterially-derived dissolved organic carbon in the ocean Tao Liu/Xiamen University
14:00	14:15	590	The analysis of the distribution patterns and driving factors of dissolved organic carbon (DOC) in Antarctic surface waters Yanwei Wang/Shanghai Jiao Tong University
14:15	14:30	591	Microbial degradation and its controls of DOM in the dynamic East China Sea revealed by combined optical and molecular characterization Yuqing Li/Shanghai Jiao Tong University
14:30	14:45	592	Oligotrophic ocean new production supported by lateral transport of dissolved organic nutrients Zhou Liang/Florida State University
14:45	15:00	593	Several trial studies to disentangle the mysterious DON cycling in the marine environment Yu Xin/Ocean University of China

## S48-2 Session 48 - Ecological and Socio-Economic Benefits of Marine Protected Areas

13:30-15:00 3B Meeting Room

Moderator: Kenneth Leung/City University of Hong Kong

Start	End	ID	Title
13:30	13:45	1087	<span style="border: 1px solid orange; padding: 2px;">Invited</span> How Indonesian marine protected areas (MPAs) are doing: A management performance-based evaluation Lusita Meilana/Center for Coastal and Marine Resources Studies, International Research Institute for Maritime, Ocean and Fisheries (i-MAR), IPB University (Bogor Agricultural University)
13:45	14:00	1082	Analysis of the evolution of social-ecological system resilience and influencing factors in marine protected areas - A case study of Changdao Marine Protected Area Xun Jiang/Ocean University of China
14:00	14:15	1086	Endocrine-disrupting chemicals in three aquatic germplasm resources national conservation zone in the South China Sea: Distribution and risks Chong Chen/City University of Hong Kong
14:15	14:30	1084	Prioritisation analysis on broad-scale patterns of biodiversity for conservation Qianshuo Zhao/Ocean University of China
14:30	14:45	1085	Navigating marine spatial planning in Bangladesh: Challenges and pathways to effective ocean governance Md. Monjurul Hasan/Xiamen university
14:45	15:00	1080	The impact of equity perception on residents' conservation willingness: The case of the <i>Sousa chinensis</i> protection area Yuhao Wang/Macau University of Science and Technology

## S49-2 Session 49 - Neogene Climate-Carbon Dynamics Associated with the Stepwise Closure of the Indonesian Seaway

13:30-15:00 1C Meeting Room

Moderator: Jinlong Du/Tongji University

Start	End	ID	Title
13:30	13:45	136	<span style="border: 1px solid orange; padding: 2px;">Invited</span> The role of tropical seaways in modulating the Pacific circulation and tropical climate. Ning Tan/Institute of Geology and Geophysics, Chinese Academy of Sciences
13:45	14:00	62	Combined control of polar stratification and iron fertilization on the Late Pliocene atmospheric pCO <sub>2</sub> drawdown. Jinlong Du/Tongji University
14:00	14:15	46	The Late Miocene ocean carbon cycle changes: New evidence from IODP expeditions in the South Atlantic Xiaobo Jin/Tongji University
14:15	14:30	66	Global ocean circulation reorganization intensified glacial cycles during the Mid-Pleistocene Transition Ke Li/Tongji University
14:30	14:45	137	Intensification of the Indonesian Throughflow in a coupled GCM during the Last Interglacial: A model-data comparison Sihua Wei/Tongji University
14:45	15:00	58	Asymmetry of hemispheric climate during MIS 16 versus MIS 12 Xiaolin Ma/Institute of Earth Environment, Chinese Academy of Sciences

## S72-1 Session 72 - Sea Turtle and Marine Mammal Conservation: Management, Academic and Outreach Perspectives

13:30-15:00 1F-1 Meeting Room

Moderators: George Balazs/Golden Honu Services of Oceania; Min Liu/Xiamen University

Start	End	ID	Title
13:30	13:45	543	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Hawaii's sea turtle conservation success story: A 50-year journey of research, recovery, and cultural awareness George Balazs/Golden Honu Services of Oceania
13:45	14:00	503	What we can learn from a long-term census of loggerhead turtle nesting grounds in Japan Yoshimasa Matsuzawa/Sea Turtle Association of Japan
14:00	14:15	500	Balancing marine life: Towards managing green turtles and seagrass ecosystems in Okinawa, Japan Tomoko Hamabata/Tohoku University
14:15	14:30	530	Thoughts on population recovery of green sea turtle in Xisha Sea Hai-Tao Shi/Hainan Normal University
14:30	14:45	535	Survival in perilous ocean: Underwater predators of sea turtle hatchlings at Chagar Hutang Bay, Redang Island, Malaysia Maizah Abdullah/Universiti Malaysia Terengganu, Faculty of Science and Marine Environment
14:45	15:00	537	Hotspots of green turtles identified in Southeast Asia call for international collaboration and cross-boundary management effort Min Liu/Xiamen University

## Coffee Break

15:00-15:20

## S4-3 Session 4 - Extreme Weather and Climate Events: Observations and Modeling

15:20-16:50 1G02 Meeting Room

Moderator: Jiacan Yuan/Fudan University

Start	End	ID	Title
15:20	15:35	576	Contributions of urbanization to a mega-heatwave and the health impacts in the Yangtze River Delta metropolitan Siyang He/Fudan University
15:35	15:50	647	The role of Arctic sea ice loss in the interdecadal trends of the East Asian summer monsoon in a warming climate Bian He/Institute of Atmospheric Physics, Chinese Academy of Sciences
15:50	16:05	637	On the early detection of polar lows: Possible criteria analysis and case studies Natalia Vazaeva/A.M. Obukhov Institute of Atmospheric Physics RAS, Bauman Moscow State Technical University
16:05	16:20	634	Sketching the spatial disparities in heatwave trends by changing atmospheric teleconnections in the Northern Hemisphere Tuantuan Zhang/School of Atmospheric Sciences, Sun Yat-sen University
16:20	16:35	646	Exploring global upper ocean marine heatwaves in coupled GFDL and NCAR models Xinru Li/Princeton University
16:35	16:50	649	Understanding bottom and surface marine heatwaves along the continental shelf of China Cao Xinyi/School of Marine Sciences, Nanjing University of Information Science and Technology

## S7-1 Session 7 - Advances in the Oceanography of the Ross Sea

15:20-16:50 1D Tongwen Hall

Moderator: Walker Smith/Shanghai Jiao Tong University

Start	End	ID	Title
15:20	15:35	740	<span>Withdrawn</span> Filling the gap: winter thermohaline evolution along and below the Ross Ice Shelf Pierpaolo Falco/University of Ancona
15:35	15:50	741	<span>Invited</span> A model-based investigation of the recent rebound of shelf water salinity in the Ross Sea Jingwei Zhang/University of Tasmania
15:50	16:05	739	The linkage of dense shelf water production in the Ross Sea with large-scale climate forcing Zhaoru Zhang/Shanghai Jiao Tong University
16:05	16:20	736	Revisiting the ocean color algorithms for particulate organic carbon and chlorophyll-a concentrations in the Ross Sea Shuangling Chen/Second Institute of Oceanography, Ministry of Natural Resources
16:20	16:35	744	The hydrographic and biogeochemical processes on the Ross Sea continental shelf based on BGC-Argo analysis Ruobing Cao/Shanghai Jiao Tong University
16:35	16:50	746	The oceanographic processes on the Ross Sea continental shelf based on BGC-Argo analysis: Autumn/winter Walker Smith/Shanghai Jiao Tong University

## S11-1 Session 11 - Recent Advances in Modelling the Ocean Carbon Cycle Across Scales

15:20-16:50 2C Meeting Room

Moderator: Yang Feng/South China Sea Institute of Oceanography, Chinese Academy of Sciences

Start	End	ID	Title
15:20	15:35	993	<span>Invited</span> Complexity in the Southern Ocean Meridional Overturning Circulation and carbon uptake changes Fan Wang/Institute of Oceanology, Chinese Academy of Sciences
15:35	15:50	997	<span>Invited</span> Modeling greenhouse gas emission from inland waters at large scales Yuanzhi Yao/East China Normal University
15:50	16:05	998	Asymmetrical ocean carbon responses to La Niña and El Niño in the tropical Pacific Ocean Enhui Liao/Shanghai Jiao Tong University
16:05	16:20	995	Research on the multi-scale variability of pCO <sub>2</sub> and its regulating mechanism in the South China Sea using a 3D physical-biogeochemical numerical model Miaoyin Zhang/National Marine Environmental Forecasting Center
16:20	16:35	996	Response of marine planktonic ecosystem to summertime subseasonal drivers in the South China Sea: A model study Wenfang Lu/Sun Yat-sen University
16:35	16:50	999	The effect of model resolution on air-sea CO <sub>2</sub> equilibration timescales Yinghuan Xie/Institute for Marine and Antarctic Studies, University of Tasmania, Australian Antarctic Program Partnership

## S12-2 Session 12 - Alleviating the Impact of Emerging Harmful Algal Blooms (HABs) to Coastal Ecosystems and Seafood Safety for a Sustainable and Healthy Ocean

15:20-15:50 2A Meeting Room

Moderator: Haifeng Gu/Third Institute of Oceanography, Ministry of Natural Resources

Start	End	ID	Title
15:20	15:35	20	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Quantitative analysis of molecular diversity of harmful algal bloom species Nansheng Chen/ Institute of Oceanology, Chinese Academy of Sciences
15:35	15:50	80	Biosynthesis of neurotoxin $\beta$ -N-methylamino-L-alanine (BMAA) in marine diatoms Aifeng Li/Ocean University of China
15:50	16:05	153	Combined metabarcoding and single-cell analysis revealed high biodiversity of <i>Triplos</i> species in the South China Sea Yingchao Li/ Institute of Oceanology, Chinese Academy of Sciences
16:05	16:20	103	Study on the regulatory mechanism of histone lysine methylation modification involved in the rapid growth of <i>Alexandrium pacificum</i> Zhimei Zhu/Ocean University of China
16:20	16:35	162	Mechanism and toxic effects of <i>Haliotis discus hannai</i> induced by yessotoxins Ye Liang/Nanjing University of Information Science and Technology
16:35	16:50	156	Diversity of benthic harmful dinoflagellates of Perhentian Islands based on environmental molecular assessment Nur Syazwani Kassim/Institute of Ocean and Earth Sciences, University of Malaya

## S20-1 Session 20 - Decadal Climate Variability: Key Processes of Air-Sea Interaction, Mechanisms and Predictability

15:20-16:50 1G01 Meeting Room

Moderator: Jun Hu/Xiamen University

Start	End	ID	Title
15:20	15:35	1402	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Deep Atlantic multidecadal variability Jianping Li/Ocean University of China
15:35	15:50	1409	Indian Ocean and Tropical Atlantic drives mid-latitude Pacific climate changes Xichen Li/Institute of Atmospheric Physics, Chinese Academy of Sciences
15:50	16:05	1423	Joint influences of the PDO and AMV on the linkage between tropical SST and Hadley circulation Juan Feng/Beijing Normal University
16:05	16:20	1417	The state of the AMOC revealed from the subpolar North Atlantic sea surface salinity Fanghua Xu/Tsinghua University
16:20	16:35	1406	Accelerated warming of High Mountain Asia predicted at multiple years ahead Shuai Hu/Institute of Atmospheric Physics, Chinese Academy of Sciences
16:35	16:50	1413	The oceanic processes associated with tropical Pacific quasi-decadal variability Guangliang Li/Xiamen University

## S27-3 Session 27 - Coastal Environment Evolution: From the Past to the Future

15:20-16:50 1B Meeting Room

Moderator: Fu Wang/China Geological Survey, Tianjin Center

Start	End	ID	Title
15:20	15:35	73	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Disentangle catchment weathering and river sediment provenance signals in East Asian continental margins Shouye Yang/State Key Laboratory of Marine Geology, Tongji University
15:35	15:50	88	Cross front material transport of North Shandong Peninsula: Multi-time scale process and sedimentary record Jianhua Gao/Nanjing University
15:50	16:05	49	A comparison of sedimentary records and channel evolution during the Song dynasty in two tide-dominated river mouths on the East China coast Zhanghua Wang/East China Normal University
16:05	16:20	47	Mouth bars' development along the West Pearl River main course, China Haixian Xiong/Sun Yat-sen University
16:20	16:35	41	The mid-Holocene sea-level highstand "treasure map" along the China coastline Tanghua Li/Nanyang Technological University
16:35	16:50	84	Historical fast sedimentation rates in the Yellow River Delta linked to human-natural interplay: Insights from high-resolution OSL chronology of cores Penghui Lin/Shantou University

## S32-2 Session 32 - Digital Twins of the Ocean (DTO) and Its Applications

15:20-16:50 3C Meeting Room

Moderator: Joanna Staneva/Helmholtz-Zentrum Hereon, Germany

Start	End	ID	Title
15:20	15:35	1454	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Digital Reefs©: Transforming management, conservation and risk for ocean ecosystems in the 21 <sup>st</sup> century Anne Cohen/Woods Hole Oceanography Institution
15:35	15:50	1476	Ocean digital twins: A powerful tool for understanding and managing our oceans Swadhin Behera/Japan Agency for Marine-Earth Science and Technology
15:50	16:05	1477	Digital twin technology: Application value and technological path in the maritime domain Jian Liu/Southern Marine Science and Engineering Guangdong Laboratory (Zhuhai)
16:05	16:20	1470	Digital twins of coral reefs: Observation, data collection, and visualization Xian Qin/City University of Hong Kong
16:20	16:35	1453	Unlocking the potential of Digital Twins of the Ocean (DTO) for sustainable fisheries and coastal resilience: Insights from Africa Isa Olalekan Elegbede/Brandenburg University of Technology
16:35	16:50	1456	CoastalRAG: A knowledge-enhanced retrieval and generation framework for large language models in coastal zone applications Wang Jian/Nanjing Normal University



**S39-1 Session 39-Ocean Boundary Layer Turbulence: Dynamics and Its Impact on the Earth System**

15:20-16:50 3B Meeting Room

Moderator: Bicheng Chen/Xiamen University

Start	End	ID	Title
15:20	15:35	1125	<del>Withdrawn</del> Neural Network Based Parameterization for Ocean Surface Boundary Layer Turbulence Junhong Liang/Louisiana State University
15:35	15:50	1126	<b>Invited</b> The Air-Sea Interaction Profiler: A mixed layer turbulence observational platform Brian Ward/University of Galway
15:50	16:05	1124	Enhanced mixing and dissipation by tropical cyclones in the Northern South China Sea: Cases study Han Zhang/Second Institute of Oceanography, Ministry of Natural Resources
16:05	16:20	1128	Kolmogorov's cyclone Yongxiang Huang/Xiamen University
16:20	16:35	1129	Langmuir mixing schemes based on the K-profile parameterization Peng Wang/Sun Yat-sen University
16:35	16:50	1127	Applications of deep learning to Langmuir turbulence parameterization in tropical cyclone conditions Yaru Zhao/Xiamen University

**S44-2 Session 44 - Western Boundary Currents, Eddies and Their Impacts on Multi-disciplinary Aspects**

15:20-16:50 1E Harmony Hall

Moderator: Junde Li/Hohai University

Start	End	ID	Title
15:20	15:35	216	<b>Invited</b> The sensitivity of the Western Boundary Currents to the horizontal resolution of the observations Hong Li/Tianjin University
15:35	15:50	214	Changes in the water properties and water leakage of mesoscale eddy Yanjiang Lin/Fudan University
15:50	16:05	221	Rhythms of the Agulhas Current within the framework of eddy energetic anisotropy Xin Guo/State Key Laboratory of Marine Environmental Science, College of Ocean and Earth Sciences, Xiamen University
16:05	16:20	204	Rapid coastal pCO <sub>2</sub> increases driven by a weakening Gulf Stream Zelun Wu/Xiamen University, University of Delaware
16:20	16:35	222	An intermediate current in North Tropical Pacific observed by moored current meters Xiaoluan Yan/Institute of Oceanology, Chinese Academy of Sciences
16:35	16:50	205	Upper water column structure and heat content reconstructions in the Coral Sea over the last 1500 years Anran Chen/MARUM - Center for Marine Environmental Sciences, University of Bremen

## S53-1 Session 53 - Geological Analogues for Future Warm Ocean and Climate

15:20-16:50 1C Meeting Room

Moderator: Enqing Huang/State Key Laboratory of Marine Geology, Tongji University

Start	End	ID	Title
15:20	15:35	1603	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Enhanced “wind-evaporation effect” drove the “deep-tropical contraction” in the early Eocene Zikun Ren/LASG, Institute of Atmospheric Physics, Chinese Academy of Sciences
15:35	15:50	1590	Shelf-basin carbonate partitioning shapes Cenozoic carbon cycle on eccentricity timescales Fenghao Liu/Tongji University
15:50	16:05	1602	Effects of runoff changes on the climate simulations of the Middle Miocene Climate Optimum Jilin Wei/State Key Laboratory of Numerical Modeling for Atmospheric Sciences and Geophysical Fluid Dynamics, Institute of Atmospheric Physics, Chinese Academy of Sciences
16:05	16:20	1600	Upper ocean instability in subpolar North Atlantic and its implications for deep water formation during interglacials Benoit Thibodeau/The Chinese University of Hong Kong
16:20	16:35	1604	Stretched polar vortex increases mid-latitude climate variability during the Last Glacial Maximum Yurui Zhang/College of Ocean and Earth Science, Xiamen University
16:35	16:50	1599	Extreme erosion in the Changjiang subaqueous delta caused by intensification of storms during the Medieval Warm Period Wei Feng/Nanjing Normal University

## S72-2 Session 72 - Sea Turtle and Marine Mammal Conservation: Management, Academic and Outreach Perspectives

15:20-16:50 1F-1 Meeting Room

Moderators: Connie Ka Yan Ng/Hong Kong Maritime Museum; Jing Wang/Society of Entrepreneurs & Ecology Foundation, Beijing

Start	End	ID	Title
15:20	15:35	508	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Non-invasive heart rate monitoring opens up new avenues for research in sea turtles Tomoko Narazaki/Meijo University
15:35	15:50	493	Effects of marine plastic pollution on large marine animals, with a particular focus on sea turtles and finless porpoises Taewon Kim/Inha University
15:50	16:05	538	Distribution pattern of cetaceans in the South China Sea based on visual surveys and environmental DNA metabarcoding Jianlong Li/Hainan University
16:05	16:20	523	The world's largest known population of Eden's whales in the Beibu Gulf, Southern China Bingyao Chen/Nanjing Normal University
16:20	16:35	544	Knowledge on hawksbill sea turtle based on the genomics from Naozhou Island waters in South China Sea Zhongduo Wang/Key Laboratory of Aquaculture of Aquatic and Economic Animals in the South China Sea, Fisheries College, Guangdong Ocean University, Key Laboratory of Prevention and Control of Aquatic Animal Diseases and Healthy Aquaculture of Guangdong Province

Start	End	ID	Title
16:35	16:50	534	<a href="#">Microbial diversity characteristics and differential analysis in green turtle nests in the Xisha Islands, China</a> Liu Lin/Hainan Normal University

**EVENT 2 Event 2 - Meet the Editors - Navigating the Path to Publication**

16:50-18:30 2A Meeting Room

Moderator: Xuping Gong/Ocean University of China

**EVENT 5-1 Event 5 - Lightning Talk**

17:00-18:00 Lightning Talk Area

Moderator: Yibin Huang/Xiamen University

**WS 1 Workshop 1 - Teaching Introductory Ocean and Environmental Sciences Courses: Methods to Engage ALL Students**

16:50-18:30 2C Meeting Room

Moderator: Robert Chen/University of Massachusetts Boston

**WS 3 Workshop 3 - Coastal-SOS Thailand: Tackling Eutrophication-Hypoxia in the Upper Gulf of Thailand**

18:30-21:30 1C Meeting Room

Moderators: Chalermrat Sangmanee/Department of Marine and Coastal Resources (Thailand); Liyang Zhan/Third Institute of Oceanography (China); Hongmei Chen/Xiamen University

## January 16, 2025 (Thursday)

### S6-1 Session 6 - Tropical Cyclone-Ocean Interactions: From Weather to Climate Scales

08:30-10:00 1C Meeting Room

Moderator: Han Zhang/Second Institute of Oceanography, Ministry of Natural Resources

Start	End	ID	Title
08:30	08:45	902	Oceanic response to tropical cyclone in the Northern South China Sea observed by underwater gliders during 2018 and 2020 Yanfeng Zhang/Second Institute of Oceanography, Ministry of Natural Resources
08:45	09:00	905	Surface wave impacts on the air-sea momentum and upper ocean turbulence under tropical cyclones Xiaohui Zhou/University of Maryland College Park
09:00	09:15	913	Deep learning for storm surge forecasting in the coastal areas of Zhejiang and Fujian Huarong Xie/Nanjing University of Information Science and Technology
09:15	09:30	911	Tropical cyclone fullness and outer region size growth: The role of spatial distribution of very deep convection Jiacheng Hong/Shanghai Jiao Tong University
09:30	09:45	916	The intrinsic timing relationship between tropical cyclone maximum intensification rate and lifetime maximum intensity Qingyang Xiong/Second Institute of Oceanography, Ministry of Natural Resources
09:45	10:00	909	Study on submesoscale thermodynamic response processes in the upper ocean during Typhoon Kalmaegi Jinyu Cai/Zhejiang Ocean University

### S12-3 Session 12 - Alleviating the Impact of Emerging Harmful Algal Blooms (HABs) to Coastal Ecosystems and Seafood Safety for a Sustainable and Healthy Ocean

08:30-10:00 Straits Hall

Moderator: Xiaolong Yu/Xiamen University

Start	End	ID	Title
08:30	08:45	102	Progress in developing FluoSieve imaging flow cytometry for marine phytoplankton observation Jianping Li/Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences
08:45	09:00	92	Comparative study on remote sensing detection methods of red tide in different ocean waters Qiaoying Yuan/National Ocean Technology Center
09:00	09:15	89	Salinity decline promotes growth and harmful blooms of a toxic alga by diverting carbon flow Xinguo Shi/Fuzhou University
09:15	09:30	152	Protozoan-driven toxin production in <i>Pseudo-nitzschia</i> and its ecological impact on the marine ecosystem Shuwen Zhang/South China Normal University
09:30	09:45	154	Diversity and dynamics of <i>Alexandrium</i> species in China seas Xiangxiang Ding/Institute of Oceanology, Chinese Academy of Sciences; University of Chinese Academy of Sciences; Chinese Academy of Sciences Key Laboratory of Marine Ecology and Environmental Sciences

Start	End	ID	Title
09:45	10:00	158	Molecular and ecological characterization of <i>Phaeocystis globosa</i> genetic diversity in coastal waters of China Yifei Wang/University of Chinese Academy of Sciences, Institute of Oceanology, Chinese Academy of Sciences

## S18-1 Session 18 - The River-Estuary-Bay Continuum: Unveiling the Carbon and Nitrogen Cycles Under Global Change

08:30-10:00 1D Tongwen Hall

Moderator: Nengwang Chen/Xiamen University

Start	End	ID	Title
08:30	08:45	1490	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Canopy heterogeneity and drought drive interannual variability in carbon source-sink periods in tidal wetlands Deepak Mishra/University of Georgia
08:45	09:00	1489	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Enhancing near-shore water quality prediction with big data and AI Yi Zheng/Southern University of Science and Technology
09:00	09:15	1499	Accumulations of anthropogenic carbon on the North American coasts Xinyu Li/University of Washington
09:15	09:30	1488	Effects of acidification on nitrification and associated nitrous oxide emission in estuarine and coastal waters Yanling Zheng/East China Normal University
09:30	09:45	1510	Carbon budget and its potential drivers in estuarine system Hongming Yao/Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences
09:45	10:00	1492	Submarine groundwater discharge in the Pearl River Estuary: Temporal variations and hydrographic proxies Guizhi Wang/Xiamen University

## S20-2 Session 20 - Decadal Climate Variability: Key Processes of Air-Sea Interaction, Mechanisms and Predictability

08:30-10:00 1G01 Meeting Room

Moderator: Jun Hu/Xiamen University

Start	End	ID	Title
08:30	08:45	1415	The role of summer monsoon in shaping sea ice variability Jiawei Zhu/Fudan University
08:45	09:00	1416	The relative roles of external forcing and internal variability on Arctic sea ice changes on decadal timescales Zili Shen/Fudan University
09:00	09:15	1422	<span style="border: 1px solid gray; padding: 2px;">Withdrawn</span> Unveiling the Indian Ocean forcing on winter eastern warming – Western cooling pattern over North America Yurong Hou/Chinese Academy of Sciences, Institute of Atmospheric Physics
09:15	09:30	1419	Atmosphere-driven processes in shaping long-term climate variability in Greenland and the broader subpolar North Atlantic Zhe Li/University of California Santa Barbara
09:30	09:45	1420	Multidecadal variability from ocean to atmosphere in the North Atlantic: Perturbation potential energy as the bridge Hongyuan Zhao/Ocean University of China

Start	End	ID	Title
09:45	10:00	1421	AMO modulation of interdecadal background of persistent heavy rainfall in summer over the Huaihe River Basin Jingwen Yu/Fudan University

## S21-1 Session 21 - Leveraging Autonomous Platforms to Study Marine Biogeochemistry and Ecosystem Dynamics

08:30-10:00 1G02 Meeting Room

Moderator: Yibin Huang/Xiamen University

Start	End	ID	Title
08:30	08:45	1106	<span style="border: 1px solid orange; padding: 2px;">Invited</span> BGC-Argo floats reveal nitrite and thiosulfate dynamics in the oceans with high spatiotemporal resolution Mariana Bif/University of Miami, Monterey Bay Aquarium Research Institute
08:45	09:00	1096	Spatial and temporal variability in the Kuroshio Extension nutrient stream from BGC-Argo and repeat hydrography Sophie Clayton/National Oceanography Centre
09:00	09:15	1104	Submesoscale ocean dynamic process contributions to diurnal subsurface chlorophyll variation along Lagrangian recirculation inside mesoscale eddies: A case study in the Southern Ocean Fenfen Liu/Sun Yat-sen University
09:15	09:30	1095	Observational insight into the mechanisms of submesoscale fronts modulating the carbon export to the mesopelagic oceans Mingxian Guo/South China Sea Institute
09:30	09:45	1102	Changes in carbon cycling in the Weddell Sea seasonal ice zone revealed by Biogeochemical-Argo floats Xiang Yang/Institute for Marine and Antarctic Studies, University of Tasmania, Australian Antarctic Program Partnership
09:45	10:00	1088	Low-pressure storms drive nitrous oxide emissions in the Southern Ocean Colette Kelly/Woods Hole Oceanographic Institution

## S23-1 Session 23 - Sea Level Rise: Understanding, Observing, and Modelling

08:30-10:00 2C Meeting Room

Moderator: Lijing Cheng/Institute of Atmospheric Physics, Chinese Academy of Sciences

Start	End	ID	Title
08:30	08:45	174	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Some personal thoughts on recent sea-level research and its implications? John Church/University of New South Wales
08:45	09:00	225	Closing the budget of sea level rise trend and its acceleration from 1960 to 2023 Huayi Zheng/Institute of Atmospheric Physics, Chinese Academy of Sciences
09:00	09:15	177	Substantial reduction in population exposure to sea level changes along the Chinese mainland coast through emission mitigation Jiacan Yuan/Fudan University
09:15	09:30	176	Evaluating the combined threats of sea level rise, storm surge and surface waves over the coastal areas in Malaysia Ju Neng Liew/Universiti Kebangsaan Malaysia
09:30	09:45	181	A dataset of storm surge reconstructions in the Western North Pacific using CNN Delei Li/Laoshan National Laboratory

Start	End	ID	Title
09:45	10:00	1120	Mechanisms of projected sea-level trends and variability in the Southeast Asia region based on MPI-ESM-ER Yi Jin/University of Hamburg

### S24-1 Session 24 - Estuaries and Coastal Environments Stress - Observations and Modelling

08:30-10:00 1B Meeting Room

Moderator: Xiao Hua Wang/UNSW (University of New South Wales)

Start	End	ID	Title
08:30	08:45	183	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Evolution and tipping dynamics in complex coastal zone systems Minhan Dai/Xiamen University
08:45	09:00	182	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Study of the regional Earth system under climate change in the Greater Bay Area: A holistic effort under an Areas of Excellence project Jianping Gan/The Hong Kong University of Science and Technology
09:00	09:15	184	Current trends in estuarine and coastal dynamics: Observations and modelling Xiao Hua Wang/UNSW (University of New South Wales)
09:15	09:30	718	In-situ on-line monitoring of greenhouse gases emitted from seaweed bed in the lagoon of Dongsha Atoll, South China Sea and their seasonal and diurnal variation trends Chung-Shin Yuan/Institute of Environmental Engineering, National Sun Yat-sen University
09:30	09:45	360	Evaluation of the coordinated development level in the eco-environmental complex system (1980-2020) within the coastal zone of Jiaozhou Bay, China Wen Wu/Ocean University of China
09:45	10:00	362	Impact of tropical cyclones on the hydrodynamics and sediment dynamics of the radial sand ridge system in the southern Yellow Sea Gang Yang/Nanjing University of Information Science & Technology

### S32-3 Session 32 - Digital Twins of the Ocean (DTO) and Its Applications

08:30-10:00 3B Meeting Room

Moderator: Joanna Staneva/Helmholtz-Zentrum Hereon, Germany

Start	End	ID	Title
08:30	08:45	1479	Digital Twin Ocean for China coastal seas Fei Chai/Xiamen University
08:45	09:00	1482	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Mechanisms controlling interannual variability of seasonal hypoxia off the Changjiang River Estuary Wenxia Zhang/Second Institute of Oceanography, Ministry of Natural Resources
09:00	09:15	1483	The roles of nutrient loading and river discharge on the phytoplankton dynamics in the semi-enclosed sea Xinyi Kang/Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences
09:15	09:30	1475	Predator-induced defense decreases growth rate and photoprotective capacity in a nitrogen-limited dinoflagellate, <i>Alexandrium minutum</i> Jingjing Zhang/Centre for Ocean Life, DTU Aqua, Technical University of Denmark, Ludong University
09:30	09:45	1480	Ocean surface radiant heating by phytoplankton: Representation in Earth System Models and processes driven by climate change Siyu Meng/University of East Anglia

Start	End	ID	Title
09:45	10:00	1471	<a href="#">A bay of two tales: Top-down control on phytoplankton and nutrient removal by oyster aquaculture</a> Liuqian Yu/The Hong Kong University of Science and Technology (Guangzhou)

#### S46-1 Session 46 - Oceanic Mesoscale and Submesoscale Processes: Characteristics, Dynamics & Parameterizations

08:30-10:00 2A Meeting Room

Moderator: Hongyang Lin/Xiamen University

Start	End	ID	Title
08:30	08:45	1357	<span style="border: 1px solid orange; padding: 2px;">Invited</span> <a href="#">Bi-directional energy cascades in the Pacific Ocean from equator to Subarctic Gyre</a> Bo Qiu/University of Hawaii at Manoa
08:45	09:00	1349	<a href="#">Effects of symmetric instability on potential vorticity budget in the Kuroshio Extension region via a parameterization scheme</a> Jihai Dong/Nanjing University of Information Science & Technology
09:00	09:15	1358	<a href="#">Intensification of submesoscale frontogenesis and forward energy cascade driven by upper-ocean convergent flows</a> Xiaolong Yu/Sun Yat-sen University
09:15	09:30	1342	<a href="#">A scale-aware parameterization of restratification effect of turbulent thermal wind balance</a> Peiran Yang/Qingdao, Laoshan Laboratory
09:30	09:45	1352	<a href="#">Decadal trends in the Southern Ocean Meridional Eddy heat transport</a> Yinxing Liu/Ocean University of China
09:45	10:00	1367	<a href="#">Characteristics of submesoscale compensated/reinforced fronts in the northern Bay of Bengal</a> Wei Duan/Hohai University

#### S60-1 Session 60 - Indian Ocean Dynamics, Air-Sea Interaction and Biogeochemical Cycles

08:30-10:00 1E Harmony Hall

Moderator: Yuanlong Li/Institute of Oceanology, Chinese Academy of Sciences

Start	End	ID	Title
08:30	08:45	322	<span style="border: 1px solid orange; padding: 2px;">Invited</span> <a href="#">Linear inverse models as a tool for understanding Indo-Pacific tropical SST variability</a> Shoichiro Kido/Japan Agency for Marine-Earth Science and Technology (JAMSTEC)
08:45	09:00	336	<a href="#">Heat content variability of the tropical Indian Ocean induced by Indian Ocean Dipole</a> Jing Duan/Institute of Oceanology, Chinese Academy of Sciences
09:00	09:15	331	<a href="#">The influence of Indian Ocean Dipole on interannual variability of Indo-Pacific Ocean: Role of atmospheric bridge and oceanic channel</a> Jing Wang/Institute of Oceanology, Chinese Academy of Sciences
09:15	09:30	329	<a href="#">Emergence of decadal linkage between Western Australian Coast and Western-central tropical Pacific</a> Yuewen Ding/Institute of Atmospheric Physics, Chinese Academy of Sciences
09:30	09:45	324	<a href="#">Extreme rainfall over South China in 2024 April: Role of Indian Ocean</a> Lianyi Zhang/South China Sea Institute of Oceanology, Chinese Academy of Sciences
09:45	10:00	320	<a href="#">A decadal twin dipole mode in the Southern Atlantic and Indian Oceans</a> Xing Gao/National University of Defense Technology



## S72-3 Session 72 - Sea Turtle and Marine Mammal Conservation: Management, Academic and Outreach Perspectives

08:30-10:00 3C Meeting Room

Moderators: George Balazs/Golden Honu Services of Oceania; Min Liu/Xiamen University

Start	End	ID	Title
08:30	08:45	527	<b>Invited</b> Replacing artisanal fisheries with dolphin watching: Strategy for coastal-delphinid conservation and sustainable community-based marine ecotourism Shiang-Lin Huang/Guangxi Academy of Marine Sciences, Guangxi Academy of Sciences
08:45	09:00	479	Report on TED efficiency trials aboard a Gabonese fish trawler owned by a Chinese operator Michel A. Nalovic/fishingcleaner.com
09:00	09:15	488	Funded studies on sea turtle and marine mammal in the past decade Kwan Chak Leung/Ocean Park Conservation Foundation Hong Kong
09:15	09:30	521	Marine turtle conservation in China: Achievements and challenges Jing Wang/Society of Entrepreneurs & Ecology Foundation, Beijing
09:30	09:45	536	Empowering citizen science to reveal sea turtle populations together Daphne Hoh/TurtleSpot Taiwan, Biodiversity Research Centre, Academia Sinica, Taipei
09:45	10:00	519	The sea turtles are crying Mingbin Ye/Guangdong Huidong Sea Turtle Reserve

### Coffee Break

10:00-10:20

### Keynote Speech

10:20-11:40 Straits Hall

Start	End	Title
10:20	11:00	<b>Keynote</b> Nutrient Regulation of Biological Nitrogen Fixation in Present and Future Oceans Dalin Shi/Xiamen University
11:00	11:40	<b>Keynote</b> Ocean Meets Network Science: Exploring Extreme Ocean-Related Events via a Complex Network Approach Jürgen Kurths/Potsdam Institute for Climate Impact Research, Potsdam, Humboldt University, Berlin

### Lunch Break

11:40-13:30

## TH 2 Town Hall 2 - Regional Modelling for the East Asian Seas and Western Pacific Ocean: Experience and Perspective from MoNITOR and COASTAL-SOS

12:00-13:15 1B Meeting Room

Moderators: Fei Chai/Xiamen University; Yuntao Wang/Second Institute of Oceanography; Hongmei Chen/Xiamen University

## WS 5 Workshop 5 - What We Wish We'd Known: Tips About Writing and Publishing Your First Paper

12:00-13:15 1E Harmony Hall

Moderators: Pat Glibert/University of Maryland, Center for Environmental Science; Bob Chen/University of Massachusetts Boston; Mina Bizic/Technical University of Berlin

## S6-2 Session 6 - Tropical Cyclone-Ocean Interactions: From Weather to Climate Scales

13:30-15:00 1C Meeting Room

Moderator: Han Zhang/Second Institute of Oceanography, Ministry of Natural Resources

Start	End	ID	Title
13:30	13:45	904	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Exploring the mutual memory of tropical cyclones and upper ocean conditions Shuai Wang/University of Delaware
13:45	14:00	906	Impact of Tropical Cyclone Bavi (2020) on hypoxic zone variation off the Yangtze River Estuary: A case study Qicheng Meng/Second Institute of Oceanography, Ministry of Natural Resources
14:00	14:15	907	Asymmetric and irreversible response of tropical cyclone potential intensity to CO <sub>2</sub> removal Dubin Huan/Institute of Atmospheric Physics, Chinese Academy of Sciences
14:15	14:30	910	China coasts facing more tropical cyclone risks during the second decaying summer of double-year La Niña events Xi Luo/School of Marine Sciences, Sun Yat-sen University, South China Sea Institute of Oceanology, Chinese Academy of Sciences
14:30	14:45	908	Storm size modulates tropical cyclone intensification through an oceanic pathway in global oceans Yuhao Liu/Ocean University of China
14:45	15:00	914	Near-surface ocean temperature and air-sea heat flux observed by a buoy array during summer to autumn in year 2014 in the northern South China Sea Wu Zixi/Second Institute of Oceanography, Ministry of Natural Resources

## S18-2 Session 18 - The River-Estuary-Bay Continuum: Unveiling the Carbon and Nitrogen Cycles Under Global Change

13:30-15:00 1D Tongwen Hall

Moderator: Weijin Yan/Institute of Geographic Sciences and Resources, Chinese Academy of Sciences

Start	End	ID	Title
13:30	13:45	1486	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Increased CH <sub>4</sub> and CO <sub>2</sub> production and diffusive flux in rivers with high urbanization Siyue Li/Wuhan Institute of Technology
13:45	14:00	1500	Anthropogenic activities generate high refractory black carbon along the Yangtze River continuum Changchun Huang/Nanjing Normal University
14:00	14:15	1508	Carbon dioxide and methane concentration and emissions from human-impacted inland water-estuary system in Terengganu Basin (Malaysia) Seng Chee Poh/Universiti Malaysia Terengganu
14:15	14:30	1487	Closing the carbon budget in an estuarine tidal freshwater marsh: An integration of eddy flux tower, lateral carbon export, and soil carbon accumulation rate Fang Cao/East China Normal University
14:30	14:45	1491	A method to determine the total nitrogen emission limits for wastewater treatment plants based on the coastal water quality objectives and cost-efficient analysis Jiayu Peng/Chinese Research Academy of Environmental Sciences
14:45	15:00	1504	Dissolved organic matter (DOM) and nitrogen export from major eastern rivers to coastal waters in China: Spatiotemporal patterns with effects of urbanization and climate change Peipei Zhang/Future Environment Laboratory, Innovation Center of Yangtze River Delta, Zhejiang University

## S21-2 Session 21 - Leveraging Autonomous Platforms to Study Marine Biogeochemistry and Ecosystem Dynamics

13:30-15:00 1G01 Meeting Room

Moderator: Jonathan Sharp/University of Washington

Start	End	ID	Title
13:30	13:45	1097	<b>Invited</b> Biogeochemical-Argo floats reveal seasonality of the biological carbon pump influenced by the Lofoten Basin Eddy Daniel Koestner/University of Bergen
13:45	14:00	1093	Contribution of water column particle composition to POC in oligotrophic waters of Western Pacific Ocean Yanxia Liu/Institute of Oceanology, Chinese Academy of Sciences
14:00	14:15	1101	Biogeochemical-Argo data suggest significant contributions of small particles to the vertical carbon flux in the subpolar North Atlantic Bin Wang/Dalhousie University, Second Institute of Oceanography
14:15	14:30	1092	Unveiling biological carbon pump processes: Seasonal and vertical productivity dynamics in the North Atlantic with BGC-Argo floats Marin Cornec/NOAA-PMEL
14:30	14:45	1090	Study processes at the seafloor with autonomous landers: Methods & applications Anders Tengberg/Aanderaa-Xylem
14:45	15:00	1100	Episodic phytoplankton blooms in the low-latitude North Atlantic: Causes and contributions to annual carbon sequestration Zhuowei Xu/The Hong Kong University of Science and Technology (Guangzhou), Earth, Ocean and Atmospheric Science Thrust

## S23-2 Session 23 - Sea Level Rise: Understanding, Observing, and Modelling

13:30-15:00 2C Meeting Room

Moderator: Xuhua Cheng/Hohai University

Start	End	ID	Title
13:30	13:45	175	<b>Invited</b> Abyssal ocean overturning slowdown and warming driven by Antarctic meltwater Qian Li/MIT (Massachusetts Institute of Technology)
13:45	14:00	179	Sea level rise contribution from polar ice sheets: A model study Tong Zhang/Beijing Normal University
14:00	14:15	180	Effects of long-term climate responses on ice sheets' commitment to future sea-level rise Dawei Li/Shanghai Jiao Tong University
14:15	14:30	178	The emergent pattern of infant stage ocean warming in satellite measurements Hu Yang/Southern Marine Science and Engineering Guangdong Laboratory (Zhuhai)
14:30	14:45	1122	Regional sea level response to external forcings from the 20 <sup>th</sup> to the 21 <sup>st</sup> century Zhen Liu/Fudan University
14:45	15:00	1123	Sea level prediction in the Kuroshio Extension region based on ConvLSTM Huang Duotian/Hohai University

## S24-2 Session 24 - Estuaries and Coastal Environments Stress - Observations and Modelling

13:30-15:00 1B Meeting Room

Moderator: Li Li/Zhejiang University

Start	End	ID	Title
13:30	13:45	185	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Heavy rainfall induced coastal water-quality deterioration - Comparison between 2019 Typhoon Lekima and 2021 autumn flood Dehai Song/Ocean University of China
13:45	14:00	363	Exploring key features for runoff prediction using a coupled SWAT-LSTM approach Zhixin Cheng/Dalian Maritime University
14:00	14:15	356	Future change in the Vietnam upwelling under a high-emission scenario Fanglou Liao/Northwestern Polytechnical University
14:15	14:30	361	Changes in climate-change-induced major flood levels in the Georges River Estuary, Australia Wenjun Zhu/UNSW (University of New South Wales)
14:30	14:45	714	Dynamic adjustment of coastal upwelling to surface waves over a steep shelf Shangfei Lin/The Hong Kong University of Science and Technology
14:45	15:00	711	Variability of the bottom boundary layer induced by the dynamics of the cross-isobath transport over a variable shelf Weicong Cheng/The Hong Kong University of Science and Technology

## S31-1 Session 31 - Blue Carbon: From Science, Restoration and Trading

13:30-15:00 1G02 Meeting Room

Moderator: Luzhen Chen/Xiamen University, China

Start	End	ID	Title
13:30	13:45	24	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Studies on carbon cycles and blue carbon sinks of Chinese mangrove ecosystems Guanghui Lin/Department of Earth System Science, Tsinghua University, Hainan International Blue Carbon Research Center
13:45	14:00	30	Seasonality and local nutrient discharges drive changes the blue carbon potential of seagrass ecosystems in Hong Kong Juan Diego Gaitan-Espitia/The University of Hong Kong
14:00	14:15	22	Mangrove methane emission is greater than previously estimated due to overlooked stem methane flux Faming Wang/ South China Botanical Garden, Chinese Academy of Sciences
14:15	14:30	27	Spatial and temporal variability of symbiotic bacteria in the root system of seagrass <i>Halophila ovalis</i> Jiawei Chen/The Hong Kong University of Science and Technology
14:30	14:45	26	Seagrass vegetative blue carbon sequestration capacity: From observation technology to database Xiaoxuan Gu/Xiamen University
14:45	15:00	37	Assessing seagrass carbon stock and sequestration in an aquaculture area of the Sumberkima Bay, Bali, Indonesia Nuryani Widagti/Xiamen University, Agency for National Research and Innovation

**S33-1 Session 33 - Ocean Negative Carbon Emissions**

13:30-15:00 3B Meeting Room

Moderators: Peng Xiu/Xiamen University; Yao Zhang/Xiamen University

Start	End	ID	Title
13:30	13:45	282	<b>Invited</b> Ocean Negative Carbon Emissions (ONCE): Approaches and practices Nianzhi Jiao/Xiamen University
13:45	14:00	279	Can seagrass meadows on reef sediments with high organic carbon content act as hotspots for alkalinity production? Wen-Chen Chou/National Taiwan Ocean University
14:00	14:15	242	Quantifying coastal blue carbon through primary production in a subtropical bay Tzong-Yueh Chen/National Taiwan Ocean University
14:15	14:30	305	Carbon sequestration effect of coastal seaweed ecosystems and enhancement strategies Yongyu Zhang/Qingdao Institute of Bioenergy and Bioprocess Technology, Chinese Academy of Sciences
14:30	14:45	298	Evaluating the effect of ocean alkalinity enhancement using the Earth system model cGENIE Wentao Ma/Second Institute of Oceanography, Ministry of Natural Resources
14:45	15:00	302	Potential of CO <sub>2</sub> sequestration through accelerated weathering of limestone on ships Sijia Dong/Nanjing University

**S46-2 Session 46 - Oceanic Mesoscale and Submesoscale Processes: Characteristics, Dynamics & Parameterizations**

13:30-15:00 2A Meeting Room

Moderator: Zhiwei Zhang/Ocean University of China

Start	End	ID	Title
13:30	13:45	1338	<b>Invited</b> Subsurface eddies imaged by seismic oceanography methods Haibin Song/Tongji University
13:45	14:00	1370	Asymmetry of submesoscale instabilities in anticyclonic and cyclonic eddies Hongyang Lin/Xiamen University
14:00	14:15	1340	Characteristics and generation mechanisms of intrathermocline eddies in the Southwestern South China Sea Zhongbin Sun/Ocean University of China
14:15	14:30	1351	Application of SWOT data in oceanic fine-scale dynamics in the Northwestern Pacific and South China Sea Mingfang Miao/Ocean University of China
14:30	14:45	1339	Seasonal variability of eddy kinetic energy at the eastern boundary of the Weddell Gyre Shikai Yang/Shanghai Jiao Tong University
14:45	15:00	1361	Impact of horizontal resolution on simulating eddy-induced meridional heat transport in the Southeast Indian Ocean Xingshang Qian/Shanghai Jiao Tong University

## S51-1 Session 51 - The Changing Coastal Environment: From Land-Sourced Pollution to Marine Ecological Risk

13:30-15:00 3C Meeting Room

Moderator: Donghui Wen/Peking University

Start	End	ID	Title
13:30	13:45	545	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Shining light on hidden risks: Mineral sunscreens and coral health Xiaoshan Zhu/Hainan University
13:45	14:00	546	The impact of wind farm construction on swimming animals: An evaluation based on the biodiversity and emerging pollutants in the South Yellow Sea Zhihua Feng/Jiangsu Ocean University
14:00	14:15	547	BDE-47 induces apoptosis and ferroptosis in <i>Pseudosciaena crocea</i> kidney (PCK) cells by disrupting mitochondrial energy metabolism Zhongyuan Zhou/Ocean University of China
14:15	14:30	548	Historical distribution and multi-dimensional environmental risk assessments of antibiotics in coastal sediments affected by land-based human activities Feifei Li/Tsinghua University
14:30	14:45	549	Atmospheric spatial patterns and sources of organic contaminants in southern coastal regions in Canada Faqiang Zhan/University of Toronto
14:45	15:00	550	Nutrient budgets and structures in various mariculture-prevalent coastal ecosystems Pengchun Ma/Xiamen University

## S60-2 Session 60 - Indian Ocean Dynamics, Air-Sea Interaction and Biogeochemical Cycles

13:30-15:00 1E Harmony Hall

Moderator: Yun Qiu/Third Institute of Oceanography, Ministry of Natural Resources

Start	End	ID	Title
13:30	13:45	328	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Dynamics of the summer counter-wind current along South Sri Lanka coast Weiqiang Wang/South China Sea Institute of Oceanology, Chinese Academy of Sciences
13:45	14:00	335	Stronger heat storage in the Indian-Atlantic sector of the Southern Oceans Yuanlong Li/ Institute of Oceanology, Chinese Academy of Sciences
14:00	14:15	334	Sea surface height fluctuations relevant to Indian summer monsoon over the Northwestern Indian Ocean Xiaolin Zhang/Dalian Maritime University
14:15	14:30	338	Quasi-biennial variability influence on Indian Ocean Equatorial Undercurrent Ke Huang/South China Sea Institute of Oceanology, Chinese Academy of Sciences
14:30	14:45	332	Upper ocean salinity variability and impact in the Southeast Indian subantarctic mode water formation region during the Argo era Wandi Jing/Nanjing University of Information Science and Technology
14:45	15:00	337	Intraseasonal variability of ocean heat content in the Bay of Bengal related to monsoon intraseasonal oscillation Jianhuang Qin/Hohai University

**S70-1 Session 70 - Internal Waves and Ocean Mixing**

13:30-15:00 1F-1 Meeting Room

Moderator: Xiaolin Bai/Xiamen University

Start	End	ID	Title
13:30	13:45	661	<span style="border: 1px solid orange; padding: 2px;">Invited</span> An energy-constrained profile parameterization for shear instability induced mixing Chuanyu Liu/Institute of Oceanology, Chinese Academy of Sciences
13:45	14:00	1448	Subsurface turbulent mixing layer in the central equatorial Pacific Qianwen Hu/Institute of Oceanology, Chinese Academy of Sciences
14:00	14:15	1449	Research on heat flux and aerosol flux observations in open surface-water areas based on large aperture scintillometer Yuhong Pu/Shanghai Jiao Tong University
14:15	14:30	670	Turbulent heat exchange between Circumpolar Deep Water and winter water on the Amundsen Sea continental shelf, Antarctica Xingchi Wang/University of Southampton
14:30	14:45	668	Wave turbulence theory in quantum fluids: Applications to Bose-Einstein condensates Ying Zhu/Institut de Physique de Nice
14:45	15:00	667	Tidal energetics in eddying ocean: An investigation in the South China Sea Yonghe Tian/Xiamen University

**Coffee Break**

15:00-15:20

**S24-3 Session 24 - Estuaries and Coastal Environments Stress - Observations and Modelling**

15:20-17 1B Meeting Room

Moderator: Lulu Qiao/Ocean University of China

Start	End	ID	Title
15:20	15:35	358	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Enhancing sediment model by incorporating spatial-temporal variability in particle size and settling velocity using machine learning coupled with numerical models Ziyu Xiao/CSIRO
15:35	15:50	720	The 2023 summer drought and high temperature turn the East China Sea off the Changjiang Estuary from a CO <sub>2</sub> sink to a CO <sub>2</sub> source Xianghui Guo/Xiamen University
15:50	16:05	704	Multi-temporal and spatial scale variations of oceanic fronts along the coast of Zhejiang and Fujian and their environmental effects Shidong Liu/Ocean University of China
16:05	16:20	715	Diffuse attenuation coefficient from ICESat-2 bathymetric photons Jian Yang/Wuhan University
16:20	16:35	710	Dynamics paradigm of geostrophic cross-isobath transport (GCT) over highly variable shelf topographies Chi Wing (Rex) Hui/The Hong Kong University of Science and Technology
16:35	16:50	359	Numerical investigation of water flux in the Yangshan Deep-water Harbor: Influence of construction project and tropical cyclones Guo Wenyun/Shanghai Maritime University

## S29-1 Session 29 - Advances and Challenges in Marine Carbon Dioxide Removal (mCDR)

15:20-16:50 2C Meeting Room

Moderator: Wei-Lei Wang/Key Laboratory of Offshore Marine Environmental Science, Xiamen University

Start	End	ID	Title
15:20	15:35	419	<b>Invited</b> The global potential of marine carbon dioxide removal (mCDR) via ocean alkalinity enhancement (OAE) Wei-Jun Cai/University of Delaware
15:35	15:50	420	<b>Invited</b> International legal aspects of marine carbon dioxide removal Erik Van Doorn/University of Wollongong
15:50	16:05	421	Design of measurement, monitoring and verification (MMV) plan for targeted risk associated with offshore CCUS Jonathan Bull/University of Southampton
16:05	16:20	526	Substance-dependent impacts of ocean alkalinity enhancement on plankton in the Equatorial Pacific Jiaying Guo/University of Tasmania
16:20	16:35	423	Assessing ocean iron fertilization for marine carbon dioxide recovery — The next steps Mark Wells/University of Maine
16:35	16:50	424	Study on the impact of spontaneous CaCO <sub>3</sub> precipitation and diatom-induced calcification on the carbon sequestration effect in alkaline enhancement Yiwen Pan/Zhejiang University

## S31-2 Session 31 - Blue Carbon: From Science, Restoration and Trading

15:20-16:50 1G02 Meeting Room

Moderator: Luzhen Chen/Xiamen University

Start	End	ID	Title
15:20	15:35	32	<b>Invited</b> Rates of organic carbon accumulation in seagrass sediments globally Ariane Arias Ortiz/Universitat Autònoma de Barcelona
15:35	15:50	25	Blue carbon methodology in China: Tools for the assessment of ocean-based climate solutions Luzhen Chen/State Key Laboratory of Marine Environmental Science, College of the Environment and Ecology, Key Laboratory of the Ministry of Education for Coastal and Wetland Ecosystems, Xiamen University
15:50	16:05	33	Reconstructing the history of blue carbon of the coastal wetlands in Maowei Sea, Beibu Gulf, China Weifang Chen/State Key Laboratory of Marine Environmental Science, Xiamen University
16:05	16:20	36	Organic carbon loss during the erosional retreat of salt marshes Siqi Pan/Hohai University
16:20	16:35	34	Significant losses in sedimentary carbon capacity due to deforestation in the Beibu Gulf, China Tianyi Nie/Southern University of Science and Technology
16:35	16:50	35	Characteristics of soil black carbon and microbial necromass carbon contents in saltmarshes Jinru Pan/University of Chinese Academy of Sciences, South China Botanical Garden, Chinese Academy of Sciences, Xiaoliang Research Station of Tropical Coastal Ecosystems, Key Laboratory of Vegetation Restoration and Management of Degraded Ecosystems, Chinese Academy of Sciences Engineering Laboratory for Ecological Restoration of Island and Coastal Ecosystems, and Guangdong Provincial



**S33-2 Session 33 - Ocean Negative Carbon Emissions**

15:20-16:50 3B Meeting Room

Moderators: Eva Breyer/Shanghai Ocean University / University of Vienna; Federico Baltar/Shanghai Ocean University

Start	End	ID	Title
15:20	15:35	296	Multifunctional fungus-like protists mediate ocean carbon cycling through different functional ecotypes Guangyi Wang/Tianjin University
15:35	15:50	301	The contribution of pelagic fungi to ocean biomass Eva Breyer/Shanghai Ocean University, University of Vienna
15:50	16:05	291	Marine fungi in the Arctic: Taxonomical distribution patterns in the Northern Sea route Olga Konovalova/Lomonosov Moscow State University Marine Research Center LLC
16:05	16:20	286	Mangrove endophytic fungi – Secret agents in a declining ecosystem Wei Lun Ng/Xiamen University Malaysia
16:20	16:35	303	Organic matter degradation by marine fungi in the global ocean Federico Baltar/Shanghai Ocean University, University of Vienna
16:35	16:50	304	<b>Invited</b> Organic matter degradation by oceanic fungi differs between polar and non-polar waters Kangli Guo/University of Vienna

**S46-3 Session 46 - Oceanic Mesoscale and Submesoscale Processes: Characteristics, Dynamics & Parameterizations**

15:20-16:50 2A Meeting Room

Moderator: Xiaolong Yu/Sun Yat-sen University

Start	End	ID	Title
15:20	15:35	1365	<b>Invited</b> Dynamical decomposition of multiscale oceanic motions Zhiyu Liu/Xiamen University
15:35	15:50	1322	Responses of the upper-ocean flow variability in different frequency bands to wind forcing changes Xiaodong Wu/Shanghai Jiao Tong University
15:50	16:05	1345	Symmetric instability under inertially resonant winds Jialin Cao/Xiamen University
16:05	16:20	1346	Interaction between offshore wind farm and the dynamic environment: From the small scale to large scale Shengli Chen/Tsinghua University
16:20	16:35	1344	Seasonality of submesoscale vertical heat transport modulated by oceanic mesoscale eddies in the Kuroshio Extension Qingyue Wang/Jiangsu Provincial Meteorological Service Center
16:35	16:50	1337	Different trajectory patterns of ocean surface drifters modulated by near-inertial oscillations Yuhang Zheng/South China Sea Institute of Oceanology, Chinese Academy of Sciences

## S51-2 Session 51 - The Changing Coastal Environment: From Land-Sourced Pollution to Marine Ecological Risk

15:20-16:50 3C Meeting Room

Moderator: You Wang/Ocean University of China, College of Marine Life Sciences

Start	End	ID	Title
15:20	15:35	557	Effects of wastewater discharge on the antibiotic resistance genes and microbial community in the coastal area Chen Jiayu/University of Science and Technology Beijing
15:35	15:50	552	Distribution control and environmental fate of PFAS in the offshore region adjacent to the Yangtze River Estuary-A study combing multiple phases analysis Yan Zhao/Ocean University of China
15:50	16:05	553	Effects of marine algae-derived dissolved organic matter on biotoxicity of polybrominated diphenyl ethers Yingying Yang/Ocean University of China
16:05	16:20	554	Deciphering resistome structuring mechanism and increased health risk from Qiantang River Basin via estuary to Hangzhou Bay Xinyu Huang/Westlake University
16:20	16:35	555	Effects of different types of wastewater discharge on microbial communities in coastal sediments Jie Wei/Peking University
16:35	16:50	556	Coastal anthropogenic disturbance changes the interaction pattern of microbial community Yunong Li/College of Environmental Science and Engineering, Peking University

## S54-1 Session 54 - Remote Sensing of Coastal Zone and Sustainable Development

15:20-16:50 1D Tongwen Hall

Moderator: Shaoling Shang/Xiamen University

Start	End	ID	Title
15:20	15:35	1283	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Recent (last 25 years) evolution of particulate river discharge into the ocean in temperate and Arctic regions based on field and satellite observations. Impacts of climate change effects and human activities. David Doxaran/Laboratoire Océanographie Villefranche CNRS/SU
15:35	15:50	1284	Floating macroalgal blooms and the relations to seaweed aquaculture in the Yellow Sea Qianguo Xing/Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences
15:50	16:05	1288	Can machine learning integrate physical processes to accurately reconstruct satellite-derived sea surface temperature under cloud and cloud-free areas? Chih-Chieh Young/National Taiwan Ocean University
16:05	16:20	1286	Contrast attenuation of Secchi disk: An assessment from field and numerical experiments Zehai Shang/Ocean University of China
16:20	16:35	1285	Long-term evolution of phytoplankton light absorption and primary productivity in the Arctic Ocean Xiang Jinzhao/Sun Yat-sen University
16:35	16:50	1305	Consistent remote sensing reflectance from multiple ocean color satellites Zhongping Lee/Xiamen University

**S55-1 Session 55 - Coastal Zone Evolution and Tipping Process**

15:20-16:50 1C Meeting Room

Moderator: Jingfang Fan/Beijing Normal University

Start	End	ID	Title
15:20	15:35	1007	<b>Invited</b> Unveiling cryospheric tipping points and cascading impacts by multi-disciplinary approach Cunde Xiao/State Key Laboratory of Earth Surface Processes and Resource Ecology, Beijing Normal University
15:35	15:50	1000	<b>Invited</b> Critical dynamics of active matter with nonreciprocal interactions Bo Zheng/Yunnan University, Zhejiang University
15:50	16:05	1016	Time persistence of climate and carbon flux networks Gaogao Dong/Jiangsu University
16:05	16:20	1015	Teleconnections among tipping elements in the Earth system Jingfang Fan/Beijing Normal University
16:20	16:35	1012	Cascades and impacts of climate tipping points Jun Meng/Beijing University of Posts and Telecommunications, Institute of Atmospheric Physics, Chinese Academy of Sciences
16:35	16:50	1008	Deep-learning-based coastal inundation mapping in SAR imagery Wantai Chen/The Institute of Oceanology, Chinese Academy of Sciences

**S60-3 Session 60 - Indian Ocean Dynamics, Air-Sea Interaction and Biogeochemical Cycles**

15:20-16:50 1E Harmony Hall

Moderator: Wei Zhuang/Xiamen University

Start	End	ID	Title
15:20	15:35	330	<b>Invited</b> A decadal climate mode in the Indian Ocean Lei Zhang/South China Sea Institute of Oceanology, Chinese Academy of Sciences
15:35	15:50	327	Variability in the volume transport of the deep overflow across the 10°S Saddle on the Ninetyeast Ridge Shanwu Zhang/Third Institute of Oceanography, Ministry of Natural Resources
15:50	16:05	326	Distributions and biological controlling processes of the seawater CO <sub>2</sub> species in the Eastern Indian Ocean during autumn and spring Xi Wu/China University of Geosciences
16:05	16:20	333	Dissolved oxygen recovery in the oxygen minimum zone of the Arabian Sea in recent decade as observed by BGC-Argo floats Tongtong Liu/Third Institute of Oceanography, Ministry of Natural Resources
16:20	16:35	325	A heterogeneous sediment dynamics caused by multiple triggering factors in the Diamantina Fracture Zone (SE Indian Ocean) Xun Yang/Institute of Deep-sea Science and Engineering, Chinese Academy of Sciences
16:35	16:50	323	The role of subsurface instabilities for increasing chlorophyll concentrations in a warming Southern Indian Ocean Yi Xu/East China Normal University

## S67-1 Session 67 - Advancing Ocean Sustainability: The Role of Early Career Ocean Professionals in Capacity Building, Ocean Literacy and Collaborative Leaders

15:20-16:50 1G01 Meeting Room

Moderator: Yuntao Wang/Second Institute of Oceanography, Ministry of Natural Resources

Start	End	ID	Title
15:20	15:35	684	<span style="border: 1px solid orange; padding: 2px;">Invited</span> <a href="#">ECOP in the UN Ocean Decade and beyond</a> Hiroaki Saito/The University of Tokyo
15:35	15:50	845	<a href="#">Establishment of coastal water quality monitoring for early warning for the Eastern Inner-Gulf of Thailand</a> Tanuspong Pokavanich/Kasetsart University - Thailand
15:50	16:05	681	<a href="#">Activating youth in East Boston, MA, USA to design sustainable shorelines</a> Aimee Bonanno/University of Massachusetts Boston
16:05	16:20	685	<a href="#">Pathway of ECOPs for participating in ocean science through UN Ocean Decade</a> Yuntao Wang/Second Institute of Oceanography, Ministry of Natural Resources
16:20	16:35	679	<a href="#">The role of the Interdisciplinary Marine Early Career Network (IMECaN) in supporting capacity building, ocean literacy, and collaborative leadership of early career researchers</a> Juliano Palacios Abrantes/The University of British Columbia
16:35	16:50	673	<a href="#">Working with local communities and volunteer divers to do science as ECOPs</a> Chawalit Charoenpong/Chulalongkorn University

## S70-2 Session 70 - Internal Waves and Ocean Mixing

15:20-16:50 1F-1 Meeting Room

Moderator: Xiaolin Bai/Xiamen University

Start	End	ID	Title
15:20	15:35	658	<span style="border: 1px solid orange; padding: 2px;">Invited</span> <a href="#">Are waves important for mesoscale energy balance?</a> Jin-Han Xie/Peking University
15:35	15:50	660	<a href="#">Energy transfer between mesoscale eddies and near-inertial waves from surface drifter observations</a> Zhiwu Chen/South China Sea Institute of Oceanology, Chinese Academy of Sciences
15:50	16:05	1447	<a href="#">Ocean internal tides suppress tropical cyclones in the South China Sea</a> Shoude Guan/Ocean University of China
16:05	16:20	672	<a href="#">Near- and super-inertial internal wave responses and the associated energy transfer after the passage of a tropical cyclone at a midlatitude shelf slope</a> Wei Yang/Tianjin University
16:20	16:35	664	<a href="#">Generation and propagation of mode-1 and mode-2 internal waves over bottom topography in a three-layer system</a> Chunxin Yuan/Ocean University of China
16:35	16:50	671	<a href="#">Field observations of internal waves triggered sediment movements at the Northern South China Sea continental slope</a> Changwei Bian/Ocean University of China

**EVENT 5-2** Event 5 - Lightning Talk

17:00-18:00 Lightning Talk Area

Moderator: Siqi Wu/Xiamen University

**WS 8** Workshop 8 - Marine Nitrogen Cycle in the Age of Climate Crisis: Identifying Knowledge Gaps and New Frontiers

16:50-19:20 1D Tongwen Hall

Moderators: Xingchen (Tony) Wang/Boston College; Xianhui Wan/Xiamen University; Xin Sun/Carnegie Institution; Dalin Shi/Xiamen University

## January 17, 2025 (Friday)

### S15-1 Session 15 - Ocean Deoxygenation: Drivers, Trends, and Biogeochemical-Ecosystem Impacts

08:30-10:00 1G01 Meeting Room

Moderator: Yangyang Zhao/Princeton University

Start	End	ID	Title
08:30	08:45	145	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Nitrous oxide production in expanding oxygen minimum zones Daniele Bianchi/University of California Los Angeles
08:45	09:00	415	Expanded subsurface ocean anoxia in the Atlantic during the Paleocene-Eocene Thermal Maximum Weiqi Yao/Southern University of Science and Technology
09:00	09:15	400	Unraveling geological and biogeochemical controls on ocean oxygenation throughout the Phanerozoic Yi Liu/Princeton University
09:15	09:30	392	Changes of ventilation in the North Atlantic over the past three decades - A climate change signal Haichao Guo/GEOMAR - Helmholtz Centre for Ocean Research Kiel
09:30	09:45	413	<span style="border: 1px solid gray; padding: 2px;">Withdrawn</span> Climate change drives deoxygenation in the Arctic Ocean Yingxu Wu/Jimei University
09:45	10:00	414	Intensified synergy of marine heatwave and low-oxygen extreme events under climate change Changyu Li/Lanzhou University

### S17-1 Session 17 - Advances in Coastal Hydrodynamics and Sediment Dynamics for a Sustainable Ocean

08:30-10:00 1E Harmony Hall

Moderator: Yaping Wang/Nanjing University, East China Normal University

Start	End	ID	Title
08:30	08:45	267	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Dynamic response of coasts and estuaries to human impacts - Problems and solutions Xiao Hua Wang/UNSW (University of New South Wales)
08:45	09:00	278	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Response of wave attenuation by coastal vegetation to climate change Zhan Hu/Sun Yat-sen University
09:00	09:15	261	Boosting riverine sediment by artificial flood in the Yellow River and the implication for delta restoration Xiao Wu/Ocean University of China
09:15	09:30	244	<span style="border: 1px solid gray; padding: 2px;">Withdrawn</span> The effects of sea ice on coastal water exchange in the Bohai Sea during cold wave conditions Na Zhang/Tianjin Chengjian University
09:30	09:45	245	Experimental study on the wave attenuation over the multiple artificial oyster reefs Abbasali Rahmani Khajouei/The Hong Kong Polytechnic University
09:45	10:00	266	Distinct morphologies and seasonal dynamics of intertidal bars: A case study from the Lianyungang coast, China Yunwei Wang/Nanjing Normal University

**S19-1 Session 19 - Marine Plankton Ecosystem and Global Climate Change**

08:30-10:00 3B Meeting Room

Moderator: Dazhi Wang/Xiamen University

Start	End	ID	Title
08:30	08:45	1484	<b>Invited</b> Epigenetic plasticity enables copepods to cope with ocean acidification Jae-Seong Lee/Sungkyunkwan University
08:45	09:00	835	Species and functional diversity of planktonic ciliate communities in the ecological floating bed of <i>Sesuvium portulacastrum</i> Jingwen Chen/State Key Laboratory of Marine Environmental Science, Xiamen Key Laboratory of Urban Sea Ecological Conservation and Restoration, College of Ocean and Earth Sciences, Xiamen University
09:00	09:15	827	Influence of sea ridge on the vertical distribution of twilight zone zooplankton community in the Indian Ocean Md Abdul Karim/South China Sea Institute of Oceanology
09:15	09:30	824	Coupling ecological concepts with an ocean-colour model: A new approach for understanding phytoplankton responses to climate change Xuerong Sun/University of Exeter
09:30	09:45	806	Phylogenetic proximity drives temporal succession of marine giant viruses in a five-year metagenomic time-series Shengwei Hou/Southern University of Science and Technology
09:45	10:00	790	CO <sub>2</sub> -induced seawater acidification impairs the stinging cells of a jellyfish Zhijun Dong/Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences

**S28-1 Session 28 - Towards a Holistic Understanding of the Ocean's Biological Carbon Pump**

08:30-10:00 2C Meeting Room

Moderator: Wei-Lei Wang/Key Laboratory of Offshore Marine Environmental Science, Xiamen University

Start	End	ID	Title
08:30	08:45	516	<b>Invited</b> A review of the biological carbon pump in the South China Sea Bangqin Huang/Xiamen University
08:45	09:00	522	Evaluating the role of enhanced weathering in marine carbon dioxide removal under high emission pathway Xiao-Yuan Zhu/State Key Laboratory of Marine Environmental Science, Xiamen University
09:00	09:15	495	The contribution of methane photoproduction to the oceanic methane paradox Yijie Li/Second Institute of Oceanography, Ministry of Natural Resources
09:15	09:30	498	Seasonal dynamics of particle size distribution and carbon export in the marginal sea of the Western Pacific Ocean Zengchao Xu/State Key Laboratory of Marine Environmental Science, Fujian Provincial Key Laboratory of Coastal Ecology and Environmental Studies, College of the Environment and Ecology, Xiamen University
09:30	09:45	463	Zonal coupling of surface export flux and subsurface remineralization in the Northwest Pacific Ocean Manyu Zhang/State Key Laboratory of Marine Environmental Science, College of Ocean and Earth Sciences, Xiamen University
09:45	10:00	464	Relationship between fluxes of particulate phosphorus and organic carbon in the Northwestern Pacific Ocean Chihyun Oh/Seoul National University

## S42-1 Session 42 - Deep-Time Ocean and Climate Changes: Insights from Models and Proxies

08:30-10:00 1G02 Meeting Room

Moderator: Jian Zhang/Peking University

Start	End	ID	Title
08:30	08:45	1371	<span style="border: 1px solid orange; padding: 2px;">Invited</span> <a href="#">New insights into the late Ediacaran glaciation</a> Maoyan Zhu/Nanjing Institute of Geology and Paleontology, Chinese Academy of Sciences
08:45	09:00	1399	<a href="#">Seawater sulphur isotope variations from the Tarim Basin during the Cambrian Series 2–3: Implications for causes of the ROECE event</a> Yinggang Zhang/Nanjing Institute of Geology and Palaeontology
09:00	09:15	1392	<a href="#">Mercury enrichments as a paleo-volcanism proxy: Sedimentary bias and a critical analysis across the end-Triassic</a> Xia Hua/Peking University, China University of Geosciences
09:15	09:30	1397	<a href="#">Transient modeling for ocean redox conditions during the Mid-Cretaceous Oceanic Anoxic Event 2</a> Qi Cui/Peking University
09:30	09:45	1394	<a href="#">Exploring the driving mechanisms behind variations in 87Sr/86Sr ratios in Neoproterozoic-Cambrian oceans</a> Bo Ran/Chengdu University of Technology
09:45	10:00	1389	<a href="#">Cold subduction shaped permanent oxygenation of the Earth's atmosphere</a> Wei Shi/Chengdu University of Technology

## S46-4 Session 46 - Oceanic Mesoscale and Submesoscale Processes: Characteristics, Dynamics & Parameterizations

08:30-10:00 2A Meeting Room

Moderator: Hongyang Lin/Xiamen University

Start	End	ID	Title
08:30	08:45	1354	<span style="border: 1px solid orange; padding: 2px;">Invited</span> <a href="#">Different meso-scale upwelling processes in the East Sea</a> Young-Heon Jo/Pusan National University
08:45	09:00	1368	<a href="#">Submesoscale eddies along the continental shelf break in the East China Sea: Their characteristics and mechanism, simulated by the MaCOM model</a> Guidi Zhou/Hohai University
09:00	09:15	1363	<a href="#">Submesoscale instabilities and their contributions to phytoplankton bloom in frontal region of the Taiwan Strait</a> Zhonghua Zhao/Xiamen University
09:15	09:30	1320	<a href="#">Periodic eddy-induced chlorophyll transportation in the BoB</a> Galwadu Acharige Jeewani Sandamali/South China Sea Institute of Oceanology, Chinese Academy of Sciences
09:30	09:45	1350	<a href="#">Quadruple enhancement of surface chlorophyll growth by submesoscale fronts of oceanic eddies</a> Hanrui Liu/Ocean University of China, Academy of the Future Ocean, Frontiers Science Center for Deep Ocean Multispheres and Earth System (FDOMES), Key Laboratory of Physical Oceanography
09:45	10:00	1341	<a href="#">Submesoscale processes and their seasonality generated by freshwater discharge at the Yangtze estuary</a> Yifan Wang/South China Sea Institute of Oceanology, Chinese Academy of Sciences



**S54-2 Session 54 - Remote Sensing of Coastal Zone and Sustainable Development**

08:30-10:00 1D Tongwen Hall

Moderator: Fengqin Yan/Institute of Geographic Sciences and Resources, Chinese Academy of Sciences

Start	End	ID	Title
08:30	08:45	1294	<b>Invited</b> Improving remotely sensed data of the coastal zone using participatory science Robert J. W. Brewin/University of Exeter
08:45	09:00	1292	The Coastal Zoon Imagers on the China's ocean color satellites Xiaomin Ye/National Satellite Ocean Application Service
09:00	09:15	1293	Global mangrove changes since the 1980s Fengqin Yan/Institute of Geographic Sciences and Natural resources Research, Chinese Academy of Sciences
09:15	09:30	1290	Monitoring and early alerting of coral reef environment in the South China Sea based on remote sensing integrated technologies Xiuling Zuo/Guangxi University
09:30	09:45	1291	Consistent seagrass mapping from Planet SuperDove images across various tide levels: A case study in the Li'an Lagoon Siyuan Hou/Xiamen University
09:45	10:00	1289	PACE hyperspectral data enables enhanced identification of algal bloom types in coastal waters Renhu Li/East China Normal University

**S55-2 Session 55 - Coastal Zone Evolution and Tipping Process**

08:30-10:00 1C Meeting Room

Moderator: Jingfang Fan/Beijing Normal University

Start	End	ID	Title
08:30	08:45	1019	<b>Invited</b> Holistic evolution of marine ecosystems in the Bohai Sea Xiaosong Chen/Beijing Normal University, Zhejiang University
08:45	09:00	1020	Geometric algebra and hypercomplex signal processing in the Digital Twin of the Coast Zhaoyuan Yu/Nanjing Normal University
09:00	09:15	1010	Coastal and shelf sea level variations in the East China Sea under multiple driving forces Hui Wu/East China Normal University
09:15	09:30	1011	Nonlinear energy cascade in coastal circulation Annalisa De Leo/The Hong Kong Polytechnic University
09:30	09:45	1060	Early warning signals for critical transitions in complex systems Chunhua Zeng/Kunming University of Science and Technology
09:45	10:00	1017	Physical forcing of phytoplankton dynamics in non-estuarine coastal lagoons Peng Zhan/Southern University of Science and Technology

## S57-1 Session 57 - Contaminants Across the Marine Continuum: Behavior, Fate and Ecological Risk Assessment

08:30-10:00 1B Meeting Room

Moderator: Li Zhang/South China Sea Institute of Oceanology, Chinese Academy of Sciences

Start	End	ID	Title
08:30	08:45	447	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Biological fate of nano- and microplastics in marine organisms: From uptake to toxicity Chang-Bum Jeong/Incheon National University
08:45	09:00	1615	<span style="border: 1px solid gray; padding: 2px;">Withdrawn</span> Uranium extraction from seawater and detection of nuclide Ning Wang/Hainan University
09:00	09:15	438	High cadmium levels in Chinese cockles: Toxicokinetics and health risk assessment Qiaoguo Tan/College of the Environment Science and Ecology, Xiamen University
09:15	09:30	457	High hydrostatic pressure stimulates medium-chain n-alkane mineralization to CO <sub>2</sub> in deep ocean Huaying Lin/Shanghai Jiao Tong University
09:30	09:45	439	Emerging SSD methods for predicted-no-effect concentration derivation and ecological risk assessment of endocrine disrupting chemicals (EDCs): A review Yi Cong/National Marine Environmental Monitoring Center
09:45	10:00	441	Effects and mechanisms of titanium dioxide nanoparticles on arsenic metabolism and toxicity in marine organisms Wei Qian/Hainan University

## S59-1 Session 59 - Impacts of Climate and Biogeochemical Extremes on Marine Organisms and Ecosystems

08:30-10:00 1F-1 Meeting Room

Moderator: Yuntao Zhou/Shanghai Jiao Tong University

Start	End	ID	Title
08:30	08:45	765	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Aerobic constraints on marine habitat from ocean weather to climate change Curtis Deutsch/Princeton University
08:45	09:00	1206	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Shell proteome plasticity assists oyster larval biomineralization in adverse carbonate chemistry Alessia Carini/The University of Hong Kong
09:00	09:15	767	Massive phytoplankton bloom induced by volcanic ash in the nutrient-poor North Pacific Subtropical Gyre Wee Cheah/University of Malaya
09:15	09:30	841	Reconstruction and interpretation of global ocean dissolved oxygen from 1960 to 2023 based on spatiotemporal machine learning Mingyu Han/Shanghai Jiao Tong University
09:30	09:45	838	Environmental controls on the global distribution of cold-water corals Junru Guan/Shanghai Jiao Tong University
09:45	10:00	1242	Biodiversity of benthic megafauna on the deep-sea plains with polymetallic nodules in the Northwestern Pacific Ocean Leyi Fang/Second Institute of Oceanography, Ministry of Natural Resources

**S63-1 Session 63 - Blue Economy and New Quality Productive Forces**

08:30-10:00 3C Meeting Room

Moderator: Zengkai Zhang/Xiamen University

Start	End	ID	Title
08:30	08:45	940	LEAP model analysis of low-carbon transition in China's coastal provinces based on offshore wind power development Yaodan Zhang/Nanchang University
08:45	09:00	727	Exploring the spatial overspill effect of shipping carbon emissions along Maritime Silk Road Tingting Kang/Peking University, School of Urban Planning and Design
09:00	09:15	726	Construction of high resolution maritime multi-regional input–output table for China's bay areas (BAY-MMRIO) Man Li/Shandong University
09:15	09:30	725	Production dependence on external factors in the marine industry of China's coastal province Chuanzeng Zheng/Xiamen University
09:30	09:45	723	Tracing the implied value added of China's marine economic industrial chain Xiaoying Liang/Xiamen University
09:45	10:00	942	Climate change challenges coastal blue carbon restoration in China Xiaoxiao Chen/Xiamen University

**Coffee Break**

10:00-10:20

**S14-1 Session 14 - The Importance of Benthic Fauna in a Changing Ocean**

10:20-11:50 2A Meeting Room

Moderators: Xiaoshou Liu/Ocean University of China; Punyasloke Bhadury/Indian Institute of Science Education and Research Kolkata

Start	End	ID	Title
10:20	10:35	350	Dominant species, functional traits and biodiversity as indicators of macrofauna response to climate change with ensemble distribution models Qi Wang/Ocean University of China
10:35	10:50	353	Research on the biodiversity and community structure of macrobenthos in the offshore and intertidal zones of Zhangzhou, Fujian Zhi Wang/Xiamen University
10:50	11:05	352	Heavy metals can affect the relationship between macrofaunal biodiversity and ecosystem functioning in intertidal zones by selectively shaping functional traits Xiaoshou Liu/Ocean University of China
11:05	11:20	347	Assessment of ecological health status of Sundarbans mangrove of the Bay of Bengal using benthic foraminifera biofacies Punyasloke Bhadury/Indian Institute of Science Education and Research Kolkata
11:20	11:35	342	Macrobenthos in the marine protected area of the subtropical Jianjiang River Estuary, China: Current state and analysis of ecological quality Jianyu Dong/Fisheries College, Guangdong Ocean University
11:35	11:50	354	Nutrient enrichment destabilizes multidimensional macrofaunal diversity in tropical coastal waters Wei Liu/Nanjing Institute of Environmental Sciences

## S15-2 Session 15 - Ocean Deoxygenation: Drivers, Trends, and Biogeochemical-Ecosystem Impacts

10:20-11:50 1G01 Meeting Room

Moderator: Kirsten Isensee/Intergovernmental Oceanographic Commission of UNESCO

Start	End	ID	Title
10:20	10:35	846	Linking oceanic O <sub>2</sub> loss to surface warming and nutrient depletion using historical observations and Earth system models Curtis Deutsch/Princeton University
10:35	10:50	405	Using dissolved oxygen isotope ( $\delta^{18}O$ ) to quantify sedimentary oxygen consumption and assess oxygen depletion in marginal seas Zhuoyi Zhu/Shanghai Jiao Tong University
10:50	11:05	394	Spatio-temporal distribution and prediction of dissolved oxygen in waters around Hong Kong Lei Chen/Xiamen University
11:05	11:20	412	An inter-comparison of the global ocean gridded dissolved oxygen data products Juan Du/Institute of Atmospheric Physics, Chinese Academy of Sciences
11:20	11:35	399	The synergy of data from profiling floats, machine learning and numerical modeling: Case of the Black Sea euphotic zone Emil Stanev/Hereon
11:35	11:50	389	Ocean deoxygenation monitoring at the Al Hoceima Marine Observatory: From sensor networks to glider missions Houssine Nibani/Marine Observatory of Al Hoceima/AGIR

## S17-2 Session 17 - Advances in Coastal Hydrodynamics and Sediment Dynamics for a Sustainable Ocean

10:20-11:50 1E Harmony Hall

Moderator: Xiao Wu/Ocean University of China

Start	End	ID	Title
10:20	10:35	272	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Tidal modulation on the detachment of the mid-field bulge of the Pearl River plume Wenping Gong/Sun Yat-sen University
10:35	10:50	258	Suspended sediment transport along tropical river catchment-estuary-coastal shelf continuum system: A case study from the Selangor River, Malaysia Aijun Wang/Third Institute of Oceanography, Ministry of Natural Resources
10:50	11:05	263	Frontal maintenance in submesoscale flows Lixin Qu/Shanghai Jiao Tong University
11:05	11:20	276	Tidal effects on dynamics and freshwater transport of a medium-scale river plume with multiple outlets Zhaoyun Chen/Shantou University
11:20	11:35	273	Shear instability and turbulent mixing by Kuroshio intrusion into the Changjiang River plume Junbiao Tu/Tongji University
11:35	11:50	268	Observations of intense turbulent mixing by mode-2 internal waves off Yangtze River Estuary Qianjiang Zhang/Observation and Research Station of Yangtze River Delta Marine Ecosystems, Ministry of Natural Resources, Zhoushan, State Key Laboratory of Satellite Ocean Environment Dynamics, Second Institute of Oceanography, Ministry of Natural Resources, Hangzhou

**S19-2 Session 19 - Marine Plankton Ecosystem and Global Climate Change**

10:20-11:50 3B Meeting Room

Moderator: Dazhi Wang/Xiamen University

Start	End	ID	Title
10:20	10:35	1481	<b>Invited</b> An overview of CO <sub>2</sub> seep studies worldwide Jason Hall-Spencer/University of Plymouth
10:35	10:50	839	Molecular events in response to triclosan-induced oxidative stress in CRISPR/Cas9-mediated p53-targeted mutants in <i>Daphnia magna</i> Lee Jin-Sol/Sungkyunkwan University
10:50	11:05	821	Genomic insights into the niche adaptation and global distribution of eukaryotic picophytoplankton Charmaine Yung/The Hong Kong University of Science and Technology
11:05	11:20	818	Size-dependent zoogeographical distribution of thaliaceans associated with current velocity and temperature Yanjiao Lai/Chinese Academy of Sciences, Shenzhen Institute of Advanced Technology
11:20	11:35	817	Dinoflagellates in the Kuroshio ecosystem: Diversity, biogeography and the transport of HAB species Hiroaki Saito/The University of Tokyo
11:35	11:50	816	Novel dimethylsulfoniopropionate (DMSP) biosynthesis enzymes in diverse marine bacteria, cyanobacteria and abundant algae Jinyan Wang/Ocean University of China

**S26-1 Session 26 - Microbial Activity Drives Elemental Cycling in the Deep Ocean: From Single-Cell to Community**

10:20-11:50 1C Meeting Room

Moderator: Amano Chie/University of Vienna

Start	End	ID	Title
10:20	10:35	691	<b>Invited</b> The ecological function of microorganisms in deep ocean high-pressure environments Yu Zhang/Shanghai Jiao Tong University
10:35	10:50	694	Microbial activity and carbon cycling in the deep ocean impacted by cold seep and hydrothermal plume Guangchao Zhuang/Ocean University of China
10:50	11:05	690	Degradation of complex organic matter and evolutionary adaptations of microorganisms in the hadal ocean Jiwen Liu/Ocean University of China
11:05	11:20	696	Unlocking protistan grazing on prokaryotes in the South China Sea: From the euphotic zone to mesopelagic waters Dapeng Xu/ State Key Laboratory of Marine Environmental Science, Xiamen University
11:20	11:35	697	Microbial mechanisms of organic carbon decomposition at ocean fronts Duo Zhao/Xiamen University
11:35	11:50	693	Comparative genomic analysis of antibiotic resistance genes in marine bacteria from anthropogenically influenced and pristine northern waters Dmytro Spriahailo/University of Vienna

## S28-2 Session 28 - Towards a Holistic Understanding of the Ocean's Biological Carbon Pump

10:20-11:50 2C Meeting Room

Moderator: Wei-Lei Wang/Key Laboratory of Offshore Marine Environmental Science, Xiamen University

Start	End	ID	Title
10:20	10:35	451	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Jigsaw puzzle of the interwoven biologically-driven ocean carbon pumps Louis Legendre/Sorbonne University
10:35	10:50	520	Research on the sinking rates of micro- and nano- phytoplankton in the euphotic zone: A case study in the South China Sea Yingjie Mao/China University of Geosciences (Wuhan)
10:50	11:05	473	Picophytoplankton is the main contributor to living carbon and biogenic silica stocks in the oligotrophic Eastern Indian Ocean Xiaofang Liu/China University of Geosciences
11:05	11:20	454	Biological oxygen production rate enhanced by the Upper Circumpolar Deep Water in the Southern Ocean: Estimates from the triple oxygen isotope approach Huanting Hu/Shanghai Jiao Tong University
11:20	11:35	481	<span style="border: 1px solid gray; padding: 2px;">Withdrawn</span> New insights into the biological carbon pump using BGC-Argo data Jie Zhang/Sorbonne University
11:35	11:50	470	Protistan grazing dynamics from euphotic to mesopelagic zones in the South China Sea: Effects of anticyclonic eddies on mixotrophic and heterotrophic activity Ying Wang/Xiamen University

## S35-1 Session 35 - Eddy Variability in the Ocean and Atmosphere: Dynamics, Parameterization and Prediction

10:20-11:50 1D Tongwen Hall

Moderator: Yang Yang/Xiamen University

Start	End	ID	Title
10:20	10:35	210	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Atmospheric eddy diffusivity: Why it still matters for climate and atmospheric circulation? Jian Lu/Ocean University of China, PNNL (Pacific Northwest National Laboratory)
10:35	10:50	241	Phase asymmetry in synoptic eddy feedback on the negatively-skewed winter NAO Hong-Li Ren/Chinese Academy of Meteorological Sciences
10:50	11:05	484	Tropical cyclone biases in CMIP6 simulations: Climatology and seasonal cycle Yi-Peng Guo/Nanjing University
11:05	11:20	496	Decreasing global tropical cyclone frequency in CMIP6 historical simulations Haikun Zhao/Nanjing University of Information Science and Technology, Pacific Typhoon Research Center
11:20	11:35	475	Enhanced periodicity of the baroclinic annular mode under global warming Ding Ma/Duke Kunshan University
11:35	11:50	510	Lapsed El Niño impact on North Atlantic and Northwest Pacific tropical cyclone activity in 2023 Jiuwei Zhao/Nanjing University of Information Science and Technology

**S42-2 Session 42 - Deep-Time Ocean and Climate Changes: Insights from Models and Proxies**

10:20-11:50 1G02 Meeting Room

Moderator: Jian Zhang/Peking University

Start	End	ID	Title
10:20	10:35	1386	<b>Invited</b> Emergence of the modern global monsoon from the Pangea megamonsoon set by paleogeography Yongyun Hu/Peking University
10:35	10:50	1387	Maintenance of the Great Late Ediacaran Ice Age Peng Liu/Ocean University of China
10:50	11:05	1395	Geological evidence reveals a staircase pattern in Earth's rotational deceleration evolution He Huang/Chengdu University of Technology
11:05	11:20	1400	An integrated carbon-phosphorus model revisiting the Hirnantian Carbon Isotope Excursion Event (HICE): Insights into its links with Late Ordovician glaciation and mass extinction Junpeng Zhang/Chinese Academy of Sciences, Nanjing Institute of Geology and Palaeontology
11:20	11:35	1391	Eccentricity-pacing of monsoon variability in the northeastern Tethys during the Middle Triassic Runjian Chu/China University of Geosciences (Beijing)
11:35	11:50	1396	The ultimate drivers of extreme temperature rise during the Permian-Triassic hyperthermal event Yuyang Wu/China University of Geosciences (Wuhan)

**S57-2 Session 57 - Contaminants Across the Marine Continuum: Behavior, Fate and Ecological Risk Assessment**

10:20-11:50 1B Meeting Room

Moderator: Ying Wang/National Center for Monitoring of the Marine Environment (NCMME)

Start	End	ID	Title
10:20	10:35	455	<b>Invited</b> Stimulating and toxic effect of chromium on marine phytoplankton Qiong Zhang/The Hong Kong University of Science and Technology
10:35	10:50	436	Temperature induced primary productivity variation controls mercury accumulation in the Northwestern Pacific Ocean Yanbin Li/Ocean University of China
10:50	11:05	426	Arsenic migration and transformation behavior in marine ecosystems Wei Zhang/Guangzhou University
11:05	11:20	440	Anthropogenic uranium isotopes in North Pacific Ocean reveal its dominant source from Pacific Proving Ground Mu Lin/Technical University of Denmark, Institute of Geology and Geophysics, Chinese Academy of Sciences
11:20	11:35	446	A study on the distribution and sources of phycotoxins in the Beibu Gulf, South China Sea Ying Ji/Ocean University of China
11:35	11:50	458	Interaction between steel slag and phytoplankton Qianqing Zhang/The Hong Kong University of Science and Technology

## S59-2 Session 59 - Impacts of Climate and Biogeochemical Extremes on Marine Organisms and Ecosystems

10:20-11:50 1F-1 Meeting Room

Moderator: Yuntao Zhou/Shanghai Jiao Tong University

Start	End	ID	Title
10:20	10:35	1213	Study on the molecular mechanism of sulfide stress memory in <i>Urechis unicinctus</i> Yubin Ma/Ocean University of China
10:35	10:50	840	Advancing mechanistic understanding of phytoplankton and oxygen responses to Pacific warming Yue Han/Shanghai Jiao Tong University
10:50	11:05	844	Seasonality of the oxygen subduction and obduction in Pacific Ocean Xiangyue Zhan/Shanghai Jiao Tong University
11:05	11:20	803	Distribution of megabenthic communities on deep-water seamounts with cobalt-rich crusts in the Magellan Seamount Chain in the Northwestern Pacific Ocean Runxuan Yan/Hohai University
11:20	11:35	1247	Pacific oyster farming habitat suitability spatiotemporal analysis based on remote sensing and dynamic energy budget from Shandong, China Zixu Yin/College of Fisheries, Ocean University of China
11:35	11:50	1209	Physiological and biogeochemical responses of super-corals to extreme cold stress from Dongshan Sea at the northernmost edge of South China Sea Mohamed Belasy Ismail/Xiamen University

## S63-2 Session 63 - Blue Economy and New Quality Productive Forces

10:20-11:50 3C Meeting Room

Moderator: Yanting Lee/Fujian Institute for Sustainable Oceans, Xiamen University

Start	End	ID	Title
10:20	10:35	938	Spatial heterogeneity of marine environmental stress and ecological risk under the demand for high-quality development of the blue economy Jianke Guo/Institute of Marine Sustainable Development, Liaoning Normal University
10:35	10:50	939	Climate change and marine economic transition: An integrated modelling approach Yiruo He/Xiamen University
10:50	11:05	944	Price premiums of seafood carrying several ecolabels: Investigation of dolphin-safe and MSC labels on tuna Yingkai Fang/Hangzhou Normal University
11:05	11:20	934	Optimizing R&D investments for high-quality development of the marine economy: A new perspective from the innovation value chain Yutao Li/Liaoning Normal University
11:20	11:35	935	New quality productivity forces and their impact on sea-land transport efficiency: A framework for the Yangtze River Delta Jinhong Mi/Shanghai Maritime University
11:35	11:50	933	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Some practical mechanisms to realize the value of eco-products: A case study in Shandong Changdao Yimo Zhang/World Wide Fund for Nature

### Lunch Break

11:40-13:30



**S15-3 Session 15 - Ocean Deoxygenation: Drivers, Trends, and Biogeochemical-Ecosystem Impacts**

13:30-15:00 1G01 Meeting Room

Moderator: Zhuoyi Zhu/Shanghai Jiao Tong University

Start	End	ID	Title
13:30	13:45	409	<a href="#">Invited</a> Impact of climate change and ENSO on marine aerobic habitat in the South East Pacific Véronique Garcon/CNRS/IPGP
13:45	14:00	411	Expanding global oxygen minimum zones restrict marine habitats under climate change Yuntao Zhou/Shanghai Jiao Tong University
14:00	14:15	402	Determining the respiration quotient of the coastal waters of Hong Kong and the GBA Henry Charles James Thomas/The Chinese University of Hong Kong
14:15	14:30	397	Physical-biogeochemical controls on the spatially variable hypoxia off the Changjiang Estuary during summer Qinsheng Wei/First Institute of Oceanography, Ministry of Natural Resources
14:30	14:45	407	Disentangling the contributions of anthropogenic nutrient input and physical forcing to long-term deoxygenation off the Pearl River Estuary, China Liuqian Yu/Earth, Ocean and Atmospheric Sciences Thrust, The Hong Kong University of Science and Technology (Guangzhou)
14:45	15:00	396	New approaches to reduce the extent of hypoxic areas in marine waters Kirsten Isensee/Intergovernmental Oceanographic Commission of UNESCO

**S17-3 Session 17 - Advances in Coastal Hydrodynamics and Sediment Dynamics for a Sustainable Ocean**

13:30-15:00 Straits Hall

Moderator: Zhang Fan/East China Normal University

Start	End	ID	Title
13:30	13:45	277	<a href="#">Invited</a> Interaction of carbon pools of coastal wetlands through sediment dynamic processes Yining Chen/Second Institute of Oceanography, Ministry of Natural Resources
13:45	14:00	256	Marsh edge erosion: Insights from the Acoustic Marsh Edge Monitor (AMEM) Qian Yu/Nanjing University
14:00	14:15	251	Inconsistent interdecadal variation of Yellow River sinks: Based on machine learning method Zhaoying Li/Laoshan Laboratory
14:15	14:30	270	Resilience of global large tide-dominated deltas: Subaerial land change and subaqueous delta transformation Haifei Yang/East China Normal University
14:30	14:45	248	In situ observation on coevolution of sand-mud boundary migrations and beach morphodynamical processes Shaohua Zhao/Third Institute of Oceanography, Ministry of Natural Resources
14:45	15:00	259	Terrain changes of the gravel-sand beach under the super typhoon "Yagi" Jieping Tang/Guangdong Ocean University

### S19-3 Session 19 - Marine Plankton Ecosystem and Global Climate Change

13:30-15:00 3B Meeting Room

Moderator: Dazhi Wang/Xiamen University

Start	End	ID	Title
13:30	13:45	842	Efficient utilization of in-situ dissolved organic matter by mixotrophic dinoflagellates: Insights from typical bloom-forming species <i>Prorocentrum donghaiense</i> Hongwei Wang/State Key Laboratory of Marine Environmental Science, Xiamen University
13:45	14:00	833	Deciphering the key multiple factors shaping the relative success of core mixotrophs across spatiotemporal scales Zhicheng Ju/Department of Ocean Science, The Hong Kong University of Science and Technology
14:00	14:15	815	Substrate availability mediates thermal response of bacterial metabolic activity in marine environments Jie Xu/Zhuhai UM Science & Technology Research Institute, Centre for Regional Oceans & Civil and Environmental Engineering, Faculty of Science and Technology, University of Macau
14:15	14:30	814	Zooplankton community structure in the epipelagic Eastern Indian Ocean during the inter-monsoon Yi Long/China University of Geosciences
14:30	14:45	812	Modelling global mesozooplankton biomass using machine learning Kailin Liu/Xiamen University
14:45	15:00	761	Spatial heterogeneity of food web structure driven by glacial retreat in Marian Cove, Antarctica: Linking environmental DNA interconnections Kyu-Young Shim/Incheon National University

### S28-3 Session 28 - Towards a Holistic Understanding of the Ocean's Biological Carbon Pump

13:30-15:00 2C Meeting Room

Moderator: Wei-Lei Wang/Key Laboratory of Offshore Marine Environmental Science, Xiamen University

Start	End	ID	Title
13:30	13:45	580	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Marine biological pathways toward carbon neutrality Jun Sun/China University of Geosciences (Wuhan)
13:45	14:00	477	Variability of microbial diversity and stability along the size-fraction sinking particle in the global ocean Ting Gu/China University of Geosciences (Wuhan)
14:00	14:15	506	Estimate of biological carbon pump: External versus internal constraints Yichen Wu/Xiamen University
14:15	14:30	524	Global ocean particulate organic carbon flux estimated using <sup>234</sup> Th measurements and a Gaussian process regression model Yawen Huang/Xiamen University
14:30	14:45	487	Distribution pattern and regulation mechanism of POC export flux in subtropical marginal sea Min Bao/Xiamen University
14:45	15:00	513	Enhancing subsurface production driven by mesopelagic nutrients through upwelling and vertical mixing Zhongsheng Xu/Second Institute of Oceanography, Ministry of Natural Resources

### S35-2 Session 35 - Eddy Variability in the Ocean and Atmosphere: Dynamics, Parameterization and Prediction

13:30-15:00 1D Tongwen Hall

Moderator: Yang Yang/Xiamen University

Start	End	ID	Title
13:30	13:45	509	<b>Invited</b> Multiscale energetics for oceanic and atmospheric processes: Challenges, misconceptions, and solution X. San Liang/Fudan University
13:45	14:00	514	A diagnostic framework linking eddy flux ellipse with eddy-mean energy exchange Ru Chen/Tianjin University
14:00	14:15	478	A preliminary comparison study of the tropical unstable waves in the ocean and the atmosphere Tao Feng/Hohai University
14:15	14:30	507	Full-depth eddy kinetic energy in the global ocean estimated from altimeter and Argo observations Qinbiao Ni/Southern Marine Science and Engineering Guangdong Laboratory (Zhuhai)
14:30	14:45	492	Irreversible mixing induced by geostrophic turbulence over the global ocean Tongya Liu/Second Institute of Oceanography, Ministry of Natural Resources
14:45	15:00	494	Steady-state linear response matrices of the Lorenz-63 Model and a two-layer QG model Pak Wah Chan/Fudan University

### S40-1 Session 40 - Geochemical Characteristics of Submarine Hydrothermal Systems and the Evolution of Hydrothermal Plumes

13:30-15:00 1C Meeting Room

Moderator: Xuegang Chen/Zhejiang University

Start	End	ID	Title
13:30	13:45	187	<b>Invited</b> The species and isotope compositions of iron in hydrothermal plumes Hu Wang/Tongji University
13:45	14:00	189	The net input of hydrothermally sourced trace metals in the Northeast Indian Ocean Pengcheng Zhao/Zhejiang University
14:00	14:15	197	Assessment of gas fluxes from Yokosuka hydrothermal field in the Western Pacific Ocean based on in situ observations Lianfu Li/LaoShan Laboratory
14:15	14:30	192	Coupling of volcanic and hydrothermal activity at the Gakkel Ridge 85°E, Arctic Ocean: Evidence from seafloor observations and volcanic glass compositions Hanlin Wang/Second Institute of Oceanography
14:30	14:45	193	In situ Raman quantitative detection of the different magmatic-hydrothermal fluids from the same magma source at the DESMOS caldera Shichuan Xi/Laoshan Laboratory
14:45	15:00	199	Systematic variations in trace element composition of pyrites from the Xunmei hydrothermal field (26°S), Mid-Atlantic Ridge Lei Fan/First Institute of Oceanography, Ministry of Natural Resources

### S42-3 Session 42 - Deep-Time Ocean and Climate Changes: Insights from Models and Proxies

13:30-15:00 1G02 Meeting Room

Moderator: Jian Zhang/Peking University

Start	End	ID	Title
13:30	13:45	1385	<b>Invited</b> Elevated atmospheric CO <sub>2</sub> drove an increase in tropical cyclone intensity during the early Toarcian hyperthermal Qing Yan/Institute of Atmospheric Physics, Chinese Academy of Sciences
13:45	14:00	1401	A new mechanism for abyssal upwelling: Insights from 4000 Years' simulations of MITgcm Lei Han/Xiamen University Malaysia
14:00	14:15	1381	Controlling factors for the global Meridional Overturning Circulation: A lesson from the Paleozoic Shuai Yuan/Peking University
14:15	14:30	1398	Contributions of aerosol effects to a wetter South Asia and a drier North Africa during the Mid-Miocene Climate Transition Anni Zhao/Peking University
14:30	14:45	1393	Climatic effects of vegetation from the colonization of land plants to the present Jiaqi Guo/Peking University
14:45	15:00	1390	Modeling study for the regulation of Tibetan Plateau uplift on the orbital effects on the Asian climate during the Oligocene Qinyao Zhang/Chengdu University of Technology

### S58-1 Session 58 - Molecular Approaches Integrated with AI to Oceanography: From DNA to Global-Scale Processes

13:30-15:00 2A Meeting Room

Moderator: Yunyun Zhuang/Ocean University of China

Start	End	ID	Title
13:30	13:45	747	<b>Invited</b> Cnidarian peptide: A new source of various hormone signaling molecules against central nervous systems disease Simon Ming-Yuen Lee/The Hong Kong Polytechnic University
13:45	14:00	748	<b>Invited</b> Discrimination of active, dormant, and dead marine microbes using a triple metabarcoding approach Jun Gong/Sun Yat-sen University
14:00	14:15	749	Illuminating microbial phosphorus cycling in deep-sea cold seep sediments using protein language models Chuwen Zhang/Third Institute of Oceanography, Ministry of Natural Resources
14:15	14:30	750	SpaGRN: Investigating spatially informed regulatory paths for spatially resolved transcriptomics data Mengyang Xu/BGI Research
14:30	14:45	751	Shifts of phytoplankton community in Long Island Sound over the recent decade of nitrogen reduction Tangcheng Li/Shantou University
14:45	15:00	752	Tracking the seasonal dynamics of virus-microbe communities in subtropical waters using multi-omics Yangbing Xu/The Hong Kong University of Science and Technology

## S66-1 Session 66 - Biomarkers in the Sea: The Tracers of Key Biogeochemical Processes in the Ocean's Past, Present and Future

13:30-15:00 3C Meeting Room

Moderator: Mengyuan Wang/Sun Yat-sen University

Start	End	ID	Title
13:30	13:45	610	<span style="border: 1px solid orange; padding: 2px;">Invited</span> Different mechanisms and CCN contribution of atmospheric new particle formation influenced by marine and continental air mass in Hangzhou Bay, a coastal area, China Min Hu/College of Environmental Sciences and Engineering, Peking University
13:45	14:00	615	Lipid biomarkers indicate the dynamics of particulate organic carbon and its carbon sequestration effects during the degradation of <i>Ulva prolifera</i> Rong Bi/Ocean University of China
14:00	14:15	625	High variability in organic carbon sources and microbial activities in the hadopelagic waters Xinxin Li/Southern University of Science and Technology
14:15	14:30	614	ENSO modulates soil organic carbon retention and deposition in the East China Sea Yi Yang/China University of Geosciences
14:30	14:45	618	Potential priming effects and molecular transformation mechanisms in the ocean Futao Fang/Shanghai Jiao Tong University
14:45	15:00	623	Microbial pterins indicating organic carbon accumulation and degradability in estuarine and coastal sediments Kang Mei/Xiamen University, Jiangsu Ocean University

### Coffee Break

15:00-15:20

### Keynote Speech

15:20-16:00 Straits Hall

Start	End	Title
15:20	16:00	<span style="border: 1px solid purple; padding: 2px;">Keynote</span> Frontiers in Global Ocean and Earth Sciences and Cutting-edge Technologies Jian Lin/Southern University of Science and Technology

### Closing

16:00-17:00 Straits Hall

Start	End	Title
16:00	16:05	Student Presentation Awards
16:05	17:00	Remarks from Co-chairs Feili Li/Xiamen University (Co-chair of XMAS 2025) Yao Zhang/Xiamen University (Co-chair of XMAS 2027)

# Posters

January 14, 2025 (Tuesday)

**S2-P Session 2 - Arctic Ocean: Physical Processes and Their Effects on Climate and the Ecosystem**

16:50-18:30 Poster Hall

ID	Title
1529	Synoptic, seasonal and interannual variability of the Ob-Yenisei and the Lena plumes based on novel high-accuracy sea surface salinity data Alexander Savin/Russian Academy of Sciences, Shirshov Institute of Oceanology, MIPT
1521	The Arctic freshwater cycle assessed from ECMWF reanalysis data Xia Lin/Nanjing University of Information Science and Technology
1520	Upper-layer circulation at the mouth of Amundsen Gulf, Arctic Ocean Peigen Lin/Shanghai Jiao Tong University
1519	Bathymetry-constrained ocean geostrophic currents play a key role in shaping the sea ice circulation in the Canada Basin, Arctic Ocean Hengling Leng/Southern Marine Science and Engineering Guangdong Laboratory (Zhuhai)
1518	Variations of the Beaufort Gyre and its impact on the freshwater content and sea levels in the Arctic Ocean Tao Wang/Hohai University
1517	Vertical distribution and bacterivory of heterotrophic and mixotrophic nanoflagellates in the Arctic Ocean Fu Yingjun/Xiamen University
1516	Variations in temperature and salinity along the MOSAIC drift trajectory and their influencing factors Hanzheng Wang/Tianjin University
1515	Understanding spatial differences in particulate organic carbon in Kongsfjorden sediments by fractionating particle size and density Junho Yoo/Kyungpook (Kyungbook) National University *
1514	Diagenesis of organic matter in the sediment of the Beaufort Sea, Arctic Ocean Hakwon Jeong/Gwangju Institute of Science and Technology
1513	Interannual variability of Atlantic water masses in the northeastern part of the Barents Sea and the St. Anna Trough Zinaida Zabudkina/Moscow Institute of Physics and Technology, Shirshov Institute of Oceanology of Russian Academy of Sciences
1512	Hydrography in the northern Bering and Chukchi Seas in the wintertime Min Li/Guangdong Ocean University
1511	Enhanced low-level temperature inversions in the marginal ice zone of the Arctic Pacific sector during cyclones: The role of intensified sea ice melting Xian Jiang/Hohai University
1526	Satellite-based evaluation of submarine permafrost erosion at shallow offshore areas in the Laptev and East Siberian Seas Polina Adamovskaya/Shirshov Institute of Oceanology, Russian State Hydrometeorological University

### S3-P Session 3 - The Nitrogen Cycle Towards a Sustainable Ocean: From Microbes to Global Biogeochemistry

16:50-18:30 Poster Hall

ID	Title
979	Effects of CO <sub>2</sub> on the nitrogen isotopic composition of marine diazotrophic cyanobacteria Zuozhu Wen/Xiamen University
828	Biological N <sub>2</sub> fixation and its nutrient controls in the North Pacific Subtropical Gyre Ruotong Jiang/Xiamen University
823	Inferring depth-integrated nitrogen fixation rates from surface measurements in global ocean Weili Chen/Xiamen University
805	The impact of vertical migration of <i>Trichodesmium</i> on the contradiction between oxygen production from photosynthesis and nitrogen fixation Jionghua Li/Xiamen University
980	Nitrogen fixation in the river-estuary-coastal ocean continuum: Jiulong River-Xiamen Bay Jiaying Zhang/Xiamen University
804	The contribution of diazotroph to the temporal decoupling of nitrogen fixation and export production: Insights from the Hawaii Ocean time-series Chongxiang Li/Xiamen University
836	Observation datasets of atmospheric reactive nitrogen deposition fluxes over China marginal seas Li Luo/Hainan University
831	Ocean warming enhances iron use efficiencies of marine ammonia-oxidizing archaea Lei Hou/University of Oklahoma
826	Machine learning insights the impact of water masses and climate change on planktonic archaeal community biogeography in the East China Sea Wei Xie/Sun Yat-sen University
820	Urea amidolyase as the enzyme for urea utilization in algae: Functional display in <i>Chlamydomonas reinhardtii</i> and evolution in algae Honghao Liang/Shantou University
799	Metagenomic insight into spatio-temporal variations of nitrogen cycling mediated by particle-attached and free-living microorganisms in the Yangtze River Estuary and adjacent regions Yuhao Chen/Shanghai Jiao Tong University
775	A novel order of anammox bacteria and their adaption in the coastal aquifer Jiapeng Wu/Guangzhou University
830	Isotopic composition of nitrate in the Western Pacific Ocean: Biogeochemical signals and their transport Wentao Wang/Institute of Oceanography, Chinese Academy of Sciences
810	Quantifying the impact of microhabitats on nitrogen removal in coastal wetland sediments Nga Man Chung/The Chinese University of Hong Kong
809	Changes in nitrogen utilization in a tropical estuary caused by temperature and phytoplankton community Min Xu/Hainan University
808	Increased particle export stimulates ammonium consumption through varied pathways in a eutrophic estuary Sijing Kang/ State Key Laboratory of Marine Environmental Science, Xiamen University
795	Nitrogen oxidation and uptake processes in a semi-enclosed mariculture bay Rong Fu/Hainan University
778	Urea and cyanate oxidation rates along a salinity gradient - Pearl River Estuary as a case study Siqi Wu/State Key Laboratory of Marine Environmental Science, College of Ocean and Earth Sciences, Xiamen University

ID	Title
825	Biogeochemical drivers of N <sub>2</sub> O dynamics along a river-estuary continuum: The critical role of N <sub>2</sub> O reduction in lowering emissions Xinxiao Wu/Guangdong University of Technology
797	The temperature effects of ammonia oxidation and associated nitrous oxide production in the coastal waters Tong Liu/Hainan University
776	Coupled stable isotope tracing and ferric iron oxidation (SIT-FIO) method to simultaneously determine the <sup>45</sup> N <sub>2</sub> O and <sup>46</sup> N <sub>2</sub> O with membrane inlet mass spectrometer Xiaoyi Li/Guangzhou University
777	Acidified potassium iodide reduction method: A rapid and precise method for measuring microbial nitrification rate across environments Yuexi Ma/Guangzhou University

### S8-P Session 8 - Modern and Past Processes of Ocean-Atmosphere-Climate Interactions in the Low-Latitude Pacific and Indian Ocean

16:50-18:30 Poster Hall

ID	Title
1221	Neritic depositional processes revealed by luminescence dating on two off-shore cores near Nanao Island in the Northern South China Sea Ziyuan Wu/Shantou University
1218	Rainfall variability in the Western Pacific Warm Pool over the last 15 kyr Botond Lázár/Xiamen University
1217	The East Pacific Oxygen Minimum Zone during the Pliocene Jeroen Groeneveld/Institute of Oceanography, National Taiwan University
1203	Diagenetic processes and dolomitization in deep marine carbonates: Insights from core U1576 of Walvis Ridge, IODP 391 Siddhant Kumar/Gwangju Institute of Science and Technology
1119	Coccolith changes in the Eastern Indian Ocean since the last glaciation Liza Nilufar Yasmin/South China Sea Institute of Oceanology, Chinese Academy of Sciences
1118	Contrasting warming response over different tropical ocean basins to localized radiative forcing Mengyu Yan/Ocean University of China
1116	Significant terrigenous dilution affected biogenic deposits in the Bay of Bengal during the last deglaciation to glaciation Lanlan Zhang/Key Laboratory of Tropical Oceanography, Key Laboratory of Ocean and Marginal Sea Geology, South China Sea Institute of Oceanology, Chinese Academy of Sciences
1115	The Banda Sea: An example of tropical upwelling driving carbonate system changes during MIS 3 to 1 Ziye Li/Ocean University of China
1114	Nonlinear response of the Western Pacific Ocean to continental ice sheets induced sea-level fluctuations Zhen Li/Xiamen University
1113	Patterns of vegetation and climate change in the Bay of Bengal during the last glaciation inferred from marine palynological records Ananna Rahman/ Chinese Academy of Sciences, South China Sea Institute of Oceanology, Guangzhou
1112	The role of active channel on sediment transport to the Bengal Fan and its implications in climate and sediment source change during the last deglaciation Md Hafijur Rahaman Khan/Key Laboratory of Ocean and Marginal Sea Geology, South China Sea Institute of Oceanology, Guangzhou, Chinese Academy of Sciences



ID	Title
1111	Indian monsoon variability in the Mahanadi Basin over the last two glacial cycles and its implications on Indonesian throughflow Boo-Keun Khim/Pusan National University

## S9-P Session 9 - Global Ocean Changes: Regional Processes and Ecological Impacts

16:50-18:30 Poster Hall

ID	Title
1334	Effects of ocean acidification and warming on carbon fixation of phytoplankton in the Taiwan Strait Yong Zhang/Fujian Normal University
1332	Effects of ocean deoxygenation and acidification on primary production processes of coastal diatoms and phytoplankton assemblages Jia-Zhen Sun/Xiamen University, Hubei Academy of Agricultural Sciences
1328	The effect of ocean acidification on methane production in <i>Emiliana huxleyi</i> is modulated by temperature changes Yuming Rao/Xiamen University
1327	Diverse responses of juvenile and adult <i>Saccharina japonica</i> sporophytes to the combined effects of copper and ocean acidification Yaoyao Chu/Fujian Agriculture and Forestry University
1326	Untapped potential of snow alga, <i>Chloromonas typhlos</i> , in algal biofuels, CO <sub>2</sub> sequestration, and nutrients removal Sufang Li/Jiangsu Ocean University
1324	Contrasting effects of temperature rise in different seasons on phytoplankton assemblages in a temperate coastal water Gang Li/South China Sea Institute of Oceanology, Chinese Academy of Sciences
1323	Correlation of methane production by diazotrophic cyanobacterium <i>Trichodesmium</i> with N <sub>2</sub> and CO <sub>2</sub> fixation under different light and temperature levels Chuze Zou/Xiamen University
1321	Marine enzymes: New synthetic biology parts with great application potential Kun Liu/Shandong University
898	Target of Rapamycin is a crucial regulator of photosynthesis and nutrient metabolism partitioning in <i>Nannochloropsis gaditana</i> Zhengying Zhang/Xiamen University
897	Low-cost cultivation of <i>Porphyridium sp.</i> and improvement of exopolysaccharide yield Shuhao Huo/Jiangsu University
890	Effects of topography on nutrient variations in the Western South China Sea Fangjuan Huang/Southern Marine Science and Engineering Guangdong Laboratory (Zhuhai)
885	Direct assimilation of atmospheric nitrogen deposition by phytoplankton under emission scenario Chenyu Luo/The Chinese University of Hong Kong
871	On the heterogeneity of stable C and N isotopic composition for large yellow croaker Lin Qi/Xiamen University
854	Ocean acidification alters microeukaryotic and bacterial food web interactions in a eutrophic subtropical mesocosm Ruiping Huang/Hainan University
850	Characterization of a new pathogenic isolate of <i>Acinetobacter ursingii</i> from the white shrimp <i>Litopenaeus vannamei</i> Ying Wang/Xiamen University

ID	Title
849	OA-ICC data compilation and portal on the biological response to ocean acidification Yan Yang/State Key Laboratory of Marine Environmental Science, College of Ocean and Earth Sciences, Xiamen University, International Atomic Energy Agency, Marine Environment Laboratories
848	Development of a new secondary $\delta^{13}\text{C}$ -DIC reference material and its application in seawater measurements Yifan Li/Second Institute of Oceanography, Ministry of Natural Resources
1311	Deoxygenation enhances photosynthetic performance and increases $\text{N}_2$ fixation in the marine cyanobacterium <i>Trichodesmium</i> under elevated $\text{pCO}_2$ Li He/College of Ocean and Earth Sciences, Xiamen University
882	Response of phytoplankton growth to temperature and nutrient interaction in subtropical coastal waters Wenqi Yao/Xiamen University
895	Regulation mechanisms of seawater acidification in a typical marine aquaculture in summer Honghao Wang/Shandong University
868	Investigation of hybridization and introgression in <i>Acropora cf humilis</i> group: Implications for adaptive evolution Ariyo Imanuel Tarigan/University of the Ryukyus

## S10-P Session 10 - The Biogeochemistry of Trace Metals in a Changing Ocean

16:50-18:30 Poster Hall

ID	Title
986	On the distribution of $^{230}\text{Th}$ and $^{231}\text{Pa}$ in the Indian Ocean Yijie Zheng/School of Marine Sciences, Sun Yat-sen University
984	Silicon isotope-based optimization of biogenic silica measurements and its application in marine sediments Die Li/Institute of Oceanology, Chinese Academy of Sciences
980	Impacts of the Yellow River diversion on sediment microbial community compositions and biogeochemical iron processes from the estuary to the Bohai Sea Mengxuan Yang/ The Institute of Oceanology, Chinese Academy of Sciences
977	Anthropogenic activities influence the mobilization of trace metals and oxyanions in coastal sediment porewaters Mingyue Luo/Liaoning Normal University
971	Beneficial effects of aluminum on marine microalgae and the underlying mechanisms Linbin Zhou/South China Sea Institute of Oceanology, Chinese Academy of Sciences
959	Effects of aluminum on diatom physiology: A preliminary study Ke Pan/Shenzhen University
967	Neodymium isotope variations in the South China Sea: Implications for water mass exchange and particle dissolution Qiong Wu/College of Oceanography, Hohai University
966	Effects of land use on the distribution of heavy metals in surface water of the Nandu River, Hainan Island Ping Li/Hainan University
964	Spatiotemporal variability of dissolved rare earth elements in the North Pacific subtropical gyre: Influences of biogeochemical cycling and application in tracing deep water Qian Liu/Ocean University of China

ID	Title
963	The marginal ice zone as a dominant source region of atmospheric mercury during central Arctic summertime Fange Yue/University of Science and Technology of China
962	The biogeochemistry of Ni and Ni isotopes in the ocean Xiaopeng Bian/University of Southern California
961	Sediment transport during submarine slides caused by the 2024 Noto Peninsula Earthquake: Trace elements and isotopes approaches to clarify the origin and transport process Shimpei Ohtsuka/University of Toyama
957	Labile Fe redox transformation controls the benthic trace elements cycling in estuarine environments Zhe Zhou/Tongji University
951	Dissolved rare earth element distributions in the Yellow River Estuary: Role of submarine groundwater discharge and particle dissolution Xu Lin/Ocean University of China
949	Exploring the balance between biogeochemical transformation of toxic methylmercury versus natural ecological functions in anthropogenically managed tropical/subtropical coastal wetlands with diverse vegetation covers Shaoyi Wang/The Chinese University of Hong Kong
947	Speciation of mercury in water and sediment of the historically contaminated area: Gulf of Trieste (Northern Adriatic Sea) Tianhui Ma/Vrije Universiteit Brussel
946	Fractionation of iron and chromium isotopes in hydrothermal vent plumes above the Northern Mid-Atlantic Ridge Wenhao Wang/University of Southampton, Sun Yat-sen University
960	Characterization of grain size and clay mineral distribution and provenance implication of surface sediments in Tangshan Harbor, Bohai Bay Yang Yamin/Command Center for Comprehensive Survey of Natural Resources, China Geological Survey

### S13-P Session 13 - Coastal Environmental Ecology Under Anthropogenic Activities and Natural Changes

16:50-18:30 Poster Hall

ID	Title
1587	Seasonal and spatial variations of dissolved inorganic nitrogen exchange between the Yellow Sea and the East China Sea and the influencing factors Yujun Liu/Ocean University of China
1585	Dynamics of seawater bacterial community and its linkage with seasonal diseases in Sanggou Bay integrated multi-trophic aquaculture systems Longfei Lu/Ministry of Natural Resources, Fourth Institute of Oceanography
1584	Tidal irrigation-based rice cultivation enhances coastal blue carbon and decreases GHG emissions in brackish mudflats Lang Zhang/ South China Botanical Garden, Chinese Academy of Sciences, State Key Laboratory of Estuarine and Coastal Research, Center for Blue Carbon Science and Technology, East China Normal University
1583	Ocean acidification and its regulating factors in the East China Sea off the Yangtze River Estuary Qinyu Liu/Donghai Laboratory
1582	Responses of bacterial communities and functional diversity to dynamic organic matter pools in coastal waters Shujing Liu/Innovation Research Center for Carbon Neutralization, State Key Laboratory of Marine Environmental Science, Fujian Key Laboratory of Marine Carbon Sequestration, College of Ocean and Earth Sciences, Xiamen University

ID	Title
1581	<a href="#">Dynamics of bacterial and protist communities during the nitrogen removal by ecological floating beds</a> Wenjing Zhang/State Key Laboratory of Marine Environmental Science, College of Ocean and Earth Sciences, Xiamen University, Xiamen Key Laboratory of Urban Sea Ecological Conservation and Restoration
1580	<a href="#">The geochemical behaviour of redox sensitive elements in the Upper Gulf of Thailand</a> Xiaojing Wang/First Institute of Oceanography, Ministry of Natural Resources
1579	<a href="#">Temporal transitions of compositions, functions and interactions of phytoplanktonic and prokaryotic communities in a subtropical aquacultural region</a> Wang Jian/Key Laboratory of Marine Ecosystem Dynamics, Second Institute of Oceanography, Ministry of Natural Resources
1578	<a href="#">El Nino and positive IOD trigger massive seagrass habitat loss on Thailand's eastern Andaman coast</a> Tanuspong Pokavanich/Faculty of Fisheries, Kasetsart University
1577	<a href="#">Responses of macrobenthic communities and functional diversity to eutrophication gradients and ecological recovery in semi-enclosed bays of Bohai Bay, China</a> Yifeng Shi/China University of Geosciences (Wuhan)
1576	<a href="#">Distribution and variation of greenhouse gases along China's coastal wetlands</a> Yang Fu/China University of Geosciences (Wuhan)
1574	<a href="#">Effects of warming on the diversity of active and dormant microbes in mangrove wetlands</a> Guanzhe Li/Sun Yat Sen University
1569	<a href="#">Phosphorus accumulation by seabird nesting changes soil microbial communities and biogeochemical cycles of a subtropical island</a> Dandan Long/Xiamen University
1568	<a href="#">Extracellular enzyme activity and microbial community structure in mariculture sediment</a> Siyang Wu/State Key Laboratory of Marine Environmental Science, Xiamen University
1567	<a href="#">Long-term dynamics and driving mechanisms of phytoplankton communities in river plume areas</a> Zhuyin Tong/Xiamen University
1563	<a href="#">The stronger Kuroshio intrusion leads to higher chlorophyll a concentration in the northern South China Sea</a> Weinan Li/State Key Laboratory of Marine Environmental Science, College of the Environment and Ecology, Xiamen University
1562	<a href="#">Assessment on sediment characteristics in cockle culture areas along the mudflats in Klang Straits, Selangor, Malaysia</a> Seok Qi Teh/Xiamen University Malaysia
1561	<a href="#">Temporal differentiation in reproduction: Key to coexistence of two sympatric <i>Platyrrhina</i> species in the Southern Taiwan Strait</a> Yan Zhuang/Xiamen University
1565	<a href="#">Quantitative assessment of nitrogen removal via floating oyster aquaculture</a> Rongxin Liu/The Hong Kong University of Science and Technology (Guangzhou)
1547	<a href="#">Influences of extreme rainfall events on the nutrient and chlorophyll-a dynamics in coastal regions</a> Yunhuan Li/Dalian University of Technology

## S22-P Session 22 - Impacts of Climate Change and Human Activity on Ocean Food Production

16:50-18:30 Poster Hall

ID	Title
926	<a href="#">Twilight struggles: The declining diel vertical migrators in a warming shelf sea</a> Lingyun Nie/Ocean University of China

ID	Title
925	Mechanism underlying the relationship between fish diversity and ecosystem functioning in Beibu Gulf Quehui Tang/South China Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences
924	Multiomics promote invasion risk assessment under global climate change Yiyong Chen/ Research Center for Eco-environmental Sciences, Chinese Academy of Sciences
922	Research on the ecological and growth impacts of hybrid grouper ( <i>Epinephelus fuscoguttatus</i> ♀ × <i>E. lanceolatus</i> ♂) on coastal groupers based on interspecific ethology Quanyin Liu/Xiamen University
921	A method for accurately identifying hatchery-reared individuals in large yellow croaker catches and its application prospects Hongjun Guo/Xiamen University
919	The Hulong hybrid grouper ( <i>Epinephelus fuscoguttatus</i> ♀ × <i>Epinephelus lanceolatus</i> ♂) had invaded and caused negative ecological impacts Xiang Zhang/Hainan University

### S25-P Session 25 - IGAC-SOLAS: Chemistry and Physics at Surface Ocean and Lower Atmosphere

16:50-18:30 Poster Hall

ID	Title
1282	Trends of atmospheric nitrogen deposition in the northwest Pacific over 2005-2015 and its impact on marine primary productivity Bingxing Zhu/Peking University
1281	Temporal changes of carbonyl sulfide (COS) through four ocean basins Li Zhou/GEOMAR Helmholtz Centre for Ocean Research Kiel
1280	Spatial variability and source identification of trace elements in aerosols from Northwest Pacific marginal sea, Indian Ocean and South Pacific to Antarctica Wenkai Guan/Shanghai Jiao Tong University
1279	Impact of phytoplankton activity on the ice nucleation potential of marine aerosols Jiao Xue/Xiamen University
1278	Regulation of ocean surface currents and seasonal sea ice variations on the occurrence and transport of organophosphate esters in the central Arctic Ocean Jinghua Zhang/Shanghai Jiao Tong University
1277	Dual impact of extreme wildfires and tropical cyclones on phytoplankton in coral reef regions Qiuyun Wu/Guangxi University
1276	High-resolution global shipping emission inventory by shipping emission inventory model (SEIM): Spatiotemporal patterns and impacts of COVID-19 and IMO fuel-switching policy Wen Yi/Tsinghua University
1275	Quantitative impact of nutrients on phytoplankton growth in the Western Pacific, Yellow Sea, and South China Sea: Insights from incubation experiments and machine learning Xintian Luo/Ocean University of China
1274	Spatial and temporal heterogeneity of marine atmospheric nitrate sources Yuanzhe Ni/Ocean University of China
1273	The physicochemical properties and ice-nucleating ability of dust particles from the Inner Mongolia deserts Yiting Chen/Xiamen university
1272	Different physicochemical properties and mixing state of atmospheric particles collected over South China Sea and Western Pacific Tian Zhang/Xiamen University

ID	Title
1271	<a href="#">Aerosol particle characterization and their immersion freezing properties in two coastal cities of China</a> Jiemin Chen/College of Ocean and Earth Sciences, Xiamen University
1270	<a href="#">Vertical characteristics of chemical composition and ice nucleation potential of atmospheric particles over the Bohai Sea</a> Juying Lu/State Key Laboratory of Marine Environmental Science, College of Ocean and Earth Sciences, Xiamen University
1269	<a href="#">Physicochemical properties of atmospheric particles at single particle level over the west coast of the Taiwan Strait</a> Jun Li/Xiamen University
1268	<a href="#">Monoterpenes production and its driving factors in the Northwest Pacific Ocean</a> Yao Gao/Xiamen University
1267	<a href="#">Iron acid dissolution in aged dust particles during dust long-range transport over inland regions</a> Minkang Zhi/Zhejiang University
1233	<a href="#">Statistical analysis of thermal and non-thermal components of oceanic pCO<sub>2</sub> time series at fixed position</a> Kévin Robache/LOG, ULCO (Laboratoire d'Océanologie et de Géosciences)
1232	<a href="#">Pyrogenic carbon degradation by galvanic coupling with sprayed seawater microdroplets</a> Rui Bao/Ocean University of China
1231	<a href="#">Impact of solar radiation induced ocean-atmosphere flux changes on cross-front winds during upwelling events</a> Xinyu Tian/Xiamen University
1230	<a href="#">Effect of East Asian aerosol deposition on viral activity and community structure in the China's marginal sea</a> Tong Jiang/Ocean University of China
1229	<a href="#">Spatiotemporal evolution of dust over Tarim Basin under continuous clear-sky</a> Xiaokai Song/Key Laboratory for Semi-Arid Climate Change of the Ministry of Education, School of Atmospheric Sciences, Lanzhou University
1228	<a href="#">Carbon monoxide cycling in the YS and the ECS in spring</a> Gaobin Xu/Ocean University of China
1227	<a href="#">Altered atmospheric VOC characteristics and enhanced ozone pollution in a Yangtze River delta coastal city driven by marine sources: Insights from integrated land-sea observations</a> Feng Xu/Peking University
1226	<a href="#">Measurement of atmospheric particle settling velocity in seawater using video imaging techniques</a> Shuo Wang/Ocean University of China
1225	<a href="#">Contribution of primary emission to aminiums in atmospheric particulates collected in bait-feeding marine fish culture area</a> Qingjing Hu/Yellow Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences
1224	<a href="#">Source types and regions of methylmercury in wet deposition in Gwangju, South Korea</a> Minjeong Kim/Gwangju Institute of Science and Technology
1223	<a href="#">Coral nutritional strategies in response to wildfire ash deposition</a> Ke Liu/School of Marine Sciences, Guangxi University
1243	<a href="#">Ice nucleating particles and their characterizations in marine atmosphere</a> Bingbing Wang/Xiamen University

### S30-P Session 30 - Planktonic and Microbial Contributions to Marine Ecosystems and Biogeochemistry: Insights from Observations, Experiments, and Modeling

16:50-18:30 Poster Hall

ID	Title
381	Modeling the ecological effects of viruses in the subtropical gyre of the Atlantic Ocean Yanjing Zhang/Xiamen University
383	Isolation and characterization of a novel phage infecting <i>Vibrio parahaemolyticus</i> Bo Ding/Xiamen University
382	Spatiotemporal variability of photosynthetically available radiation in the East China Sea Zhicheng Li/Xiamen University
384	Role of sea ice in Southern Ocean biochemical cycles between sympagic and pelagic ecosystem Jiaqi Xu/Xiamen University
385	Trophic amplification in Southern Ocean plankton in a changing climate Tianfei Xue/GEOMAR Helmholtz Centre for Ocean Research Kiel
388	Enhanced nitrate reduction efficiency as a key factor in the positive acidification response of <i>Phaeodactylum tricornutum</i> Yuting Guo/Xiamen University
386	Effects of accumulated thermal damage on microbial community dynamics Zhen Wu/Massachusetts Institute of Technology
387	Bacterial community composition differs with species and growth stage of diatom <i>Skeletonema</i> Tian Deng/Xiamen University

### S56-P Session 56 - Marine Microplastics: Novel Methods, Transportation Processes and Ecological Effects

16:50-18:30 Poster Hall

ID	Title
1437	Distribution characteristics of microplastics in surface waters in the Western Pacific Ocean Cheng Huo/National Marine Environmental Monitoring Center
1433	Analysis of the occurrence and source of microplastics in the Nandu River and Wanquan River catchments Junge Wang/Xiamen University
1429	Does microplastics found in submarine groundwater discharge in coastal bay ----- Case from Quanzhou Bay and Meizhou Bay? Xuke Chen/Xiamen University
1434	Microplastics in aquaculture-farmed ponds in western region of Bangladesh: Distribution, abundance, and environmental risk assessment Md Ali Hossain Shamim/Xiamen University
1425	Research on satellite remote sensing for microplastic abundance retrieval Jinyan Xie/Xiamen University
1438	Simulating the satellite remote sensing reflectance signal of marine microplastics using measurements of spectral and angular scattering properties Shea Cheatham/University of Bergen
1426	Microplastics in the Beibu Gulf: Enhancing the accuracy of data repair by deep learning Liwen Huang/Xiamen University
1436	Microalgae-microplastic interactions: Effects on growth and photosynthetic activity Haniyah Salma Iswandi/Hiroshima University
1431	The interaction and evolution process of "aging process microbial community structure" of biodegradable plastics in natural bay wetlands Lin Zhang/Xiamen University

ID	Title
1430	<a href="#">Analysis of the effect of different production modes on microplastic residues in the commercial salt</a> Tianyao Li/Marine Microbial Ecology & Application Laboratory, Marine Science and Technology College, Zhejiang Ocean University, Marine Organic Chemistry Laboratory, College of Ocean and Earth Sciences, Xiamen University
1446	<a href="#">Simulating the ENSO impact on the Distribution and Fate of Floating Litter Particles in the Northern South China Sea</a> Ke Pang/University of Chinese Academy of Sciences, South China Sea Institute of Oceanology

## **S61-P** Session 61-Advancing Blue Food Futures Towards Ocean Conservation and Global Resilience

16:50-18:30 Poster Hall

ID	Title
892	<a href="#">Global assessment of coral reefs' ecological function in sustaining fish biodiversity</a> Shurong Liu/Shanghai Jiao Tong University
891	<a href="#">The influence of landscape ecological pattern changes on fish community in the coastal area</a> Shuo Cheng/Xiamen University
884	<a href="#">Assessing conservation gaps under fishing pressure in the Ross Sea</a> Nan Wang/Shanghai Jiao Tong University
883	<a href="#">Effects of diel-cycling hypoxia and salinity on lipid metabolism and fatty acid composition of the oyster <i>Crassostrea hongkongensis</i></a> Yiming Gao/Shanghai Ocean University
880	<a href="#">Heavy metal risks in aquatic foods</a> Hao Xu/Shanghai Ocean University
874	<a href="#">Securing blue food: Sustainable transitions for coastal communities in China</a> Chunyu Liu/Shanghai Jiao Tong University
873	<a href="#">Three-dimensional area-based conservation to safeguard biodiversity in China's adjacent sea under climate change</a> Zihan Wang/Shanghai Jiao Tong University
872	<a href="#">ETCH —A top-down optimization method for mariculture infrastructure extraction</a> Jihao Peng/Shanghai Jiao Tong University
863	<a href="#">Impact of coral reef health and human disturbance on fish communities in the South China Sea</a> Zheyang Lin/Shanghai Jiao Tong University
857	<a href="#">Protect endangered seahorses by reducing smuggling and promoting aquaculture</a> Geng Qin/ South China Sea Institute of Oceanology, Chinese Academy of Sciences
856	<a href="#">Effects of abscisic acid on the physiological and biochemical responses of <i>Saccharina japonica</i> seedlings under high temperature stress</a> Jiexin Cui/Xiamen University

## **S62-P** Session 62 - Assessment and Simulation of Coupled Human-Sea Systems

16:50-18:30 Poster Hall

ID	Title
1051	<a href="#">Development path of island ecotourism based on human-sea interaction</a> Fenggui Chen/Third Institute of Oceanography, Ministry of Natural Resources
1053	<a href="#">Impacts of land-based pollution on water quality of the Hangzhou Bay and the East China Sea ecosystem</a> Tian Feng/Ningbo University
1047	<a href="#">Developing a coastal human-sea coupling system model (HSCO) using system of systems of approach</a> Shaobin Li/Xiamen University



ID	Title
1048	Research on the mechanism of multidimensional fusion carrying changes in coastal zone areas Zhe Yu/Institute of Marine Sustainable Development, Liaoning Normal University
1057	Evaluating coastal vegetation line post-breakwater construction: A case study in Terengganu Nur Nabila Nadia Othman/Institute of Oceanography and Environment, University Malaysia Terengganu
1056	Quantifying and simulating China's coastal squeeze between marine protected areas and urbanization Zhibin Xu/Macau University of Science and Technology
1050	Sediment transport mechanisms in coastal zones: A CFD-based study of wind and wave influence on dune formation Puteri Nurfarah Adawiyah Binti Taslin/Universiti Malaysia Terengganu
1049	Sustainability of coastal ecological protection zones under land-sea pressure: A case of the Guangdong-Hong Kong-Macao coastal area Maolin Li/Macau University of Science and Technology

### S65-P Session 65 - Oceanic-Atmospheric Processes Over the Indian and Western Pacific Oceans

16:50-18:30 Poster Hall

ID	Title
1186	Impact of the thermal contrast between the Arabian Sea and the Iranian Plateau on the interannual variability of the East Asian summer monsoon Lin Wang/Sun Yat-sen University
1165	Unraveling rainfall drivers: Dynamic and thermal forces in the East Asian Summer Monsoon Nan Zhang/ Institute of Atmospheric Physics, Chinese Academy of Sciences
1192	The moisture transportation of Somali Jet induces increasing summer rainfall over the Tibetan Plateau Zhangqun Li/Institute of Atmospheric Physics, Chinese Academy of Sciences
1188	Negative surface chlorophyll concentration anomalies in the southeast Arabian Sea during summer in 2015 and 2019 Huaming Huang/Sun Yat-sen University
1190	Attribution of upper gyre's variability in the Bay of Bengal through Indian Ocean climate modes Zhou Le/Sun Yat-sen University
1194	Distinct phase-locking of local and remote equatorial forcing modulates the evolution of subsurface warming in the Southern Bay of Bengal Tuyi Chen/Sun Yat-sen university
1195	Pan-regional characterization of the variability in the Indonesian Seas Yuan Wang/Xiamen University
1198	Layered circulations and dynamics in the Philippine Sea Linlin Liang/The Hong Kong University of Science and Technology
1200	Alternate rotating layered circulation in response to extrinsic and intrinsic forcing in the Japan Sea Junlu Li/Sun Yat-sen University
1189	Dynamics of the deep-water overflow seasonality in the Luzon Strait Ying Chen/University of Macau
1199	Intraseasonal variability in the coastal region of Western Java Hui Teng/Xiamen University
1191	Projected future changes of Ningaloo Niño under global warming Yue Wu/Institute of Oceanology, Chinese Academy of Sciences
1202	Seasonality of the intraseasonal variability in the upper equatorial Western Pacific Ocean currents Lina Song/Institute of Oceanology, Chinese Academy of Sciences

ID	Title
1169	Multiscale interactions between intra-seasonal and low-frequency variability in the tropical Western Pacific Ocean Xinying Guo/Institute of Oceanology, Chinese Academy of Sciences
1193	Coral record the expansion of the Western Pacific Warm Pool since the Industrial Revolution Xiaohua Li/Institute of Oceanology, Chinese Academy of Sciences
1167	Deep reaching wave energy-flux in the off-equatorial Pacific Ocean during the El Niño and La Niña events Borui Wu/Graduate School of Environmental Studies, Nagoya University
1187	Thermodynamic processes-induced prolongating effects on triple La Niña events in a hybrid coupled ocean-atmosphere model Xiang Dong/Institute of Oceanology, Chinese Academy of Sciences
1201	Maintenance of multi-year La Niña by phytoplankton feedback in the tropical Pacific Feng Tian/Institute of Oceanology, Chinese Academy Sciences
1197	A quantitative explanation for the large impacts of El Niño during its decaying stage Xunaliang Ji/National Marine Environmental Forecasting Center
1196	Salinity-effect strengthens ENSO forced by freshwater flux in response to global warming in the Tropical Pacific within flux-anomaly-forced model intercomparison project Hai Zhi/Nanjing University of Information Science and Technology

## S69-P Session 69 - Emerging Contaminants in the Marine Environment and Polar Region: Processes, Effects, and Health

16:50-18:30 Poster Hall

ID	Title
1042	Spatial distribution, historical dynamics, and ecological risk of per- and polyfluoroalkyl substances (PFAS) in subtropical estuarine sediments: Insights into chlorinated polyfluoroalkyl ether sulfonate transformation Qi Wang/State Key Laboratory of Marine Pollution (SKLMP), City University of Hong Kong, Research Centre for the Oceans and Human Health, City University of Hong Kong Shenzhen Research Institute
1041	Biogeochemical controls on the deposition of persistent organic pollutants in the deep ocean Mengyang Liu/City University of Hong Kong
1040	Rubber-derived chemicals in urban water system: Comprehensive profiling, influences of urbanization factors and ecological impacts Shaopeng Xu/City University of Hong Kong
237	Investigation of plastic related organic chemicals in the marine environment Lijie Mi/Helmholtz-Zentrum Hereon
234	Pathogenesis of <i>Pseudomonas putida</i> and immunological effects of the gonadally highly expressed antimicrobial peptides SCY2 and Scyreprocin in <i>Scylla paramamosain</i> Hanxiao Li/Xiamen University
1036	Influence of anthropogenic activities on the occurrence and transport of bisphenol analogues in a typical river-bay area Huaxin Li/Xiamen University
239	Temperature regulation on photo-leaching of dissolved organic matter from multiple microplastics Cai Xiaoxia/Xiamen University
236	Tidal-driven particle size distribution, phase partitioning and transport of polycyclic aromatic hydrocarbons in a subtropical maximum turbidity zone of China Siqian Wang/Anhui Agricultural University

ID	Title
233	<a href="#">Molecular identification and risk assessment of aromatic organic compounds in offshore waters of Bohai and Yellow Seas</a> Yuling Wu/Nanjing University of Information Technology
1045	<a href="#">Molecular characteristics of emerging perfluoroalkyl and polyfluoroalkyl substances (PFAS) and dissolved organic matter (DOM) in surface waters around fluorine related industries in a Chinese megacity</a> Shiyue Li/Shanghai Ocean University
1026	<a href="#">The stable soil organic carbon pool controls the burden of persistent organic pollutants in background soils</a> Lu Jiang/Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences
1032	<a href="#">Penetrating of traditional and emerging PFASs into deep water masses in the central Arctic Ocean</a> Yu Jing/Shanghai Jiao Tong University
1038	<a href="#">Short-term effects of polymetallic nodules slurry on picophytoplankton in Clarion-Clipperton Zone</a> Lin Shuangshuang/Third Institute of Oceanography, Ministry of Natural Resources
1033	<a href="#">Characteristics of the spatiotemporal distribution of antibiotics in Laizhou Bay</a> Zhang Shasha/Ocean University of China
1030	<a href="#">Neurotoxic and disturbed behavioral consequences of nanoplastic and microplastic exposure</a> Huixin Tao/Chinese Academy of Sciences, China, Shenzhen Institute of Advanced Technology

## January 15, 2025 (Wednesday)

### S4-P Session 4-Extreme Weather and Climate Events: Observations and Modeling

16:50-18:30 Poster Hall

ID	Title
577	Independent bottom marine heatwaves in the East China Sea driven by oceanic circulation Jiaxiang Gao/Nanjing University of Information Science and Technology
569	Extreme heatwave over Eastern China in summer 2022: The role of three oceans and local soil moisture feedback Jilan Jiang/Institute of Atmospheric Physics, Chinese Academy of Sciences
567	Subseasonal forecast skill and differences for heatwaves in the mid-high latitudes of the Northern Hemisphere Haozhou Liu/Institute of Atmospheric Physics Chinese Academy of Sciences
653	Simulation analysis of wind-wave coupling under high wind speeds using OpenFOAM Genhou Sun/Southern Marine Science and Engineering Guangdong Laboratory (Zhuhai)
579	Assessing vessel transportation delays affected by tropical cyclones using AIS data and a Bayesian network: A case study of Veronica in northwestern Australia Caixia Zhang/Peking University Shenzhen
578	Formation mechanisms of the Central and Eastern Atlantic Niño Heng Liu/South China Sea Institute of Oceanology, Chinese Academy of Sciences
572	Interannual relationship of the extreme precipitation dipole mode over South China and Indochina peninsula with the tropical Pacific-Indian Ocean sea surface temperature anomaly in May Bin Tang/Institute of Atmospheric Physics
575	Future changes in coastal warm-sector flood-producing MCS in Southern China Murong Zhang/ State Key Laboratory of Marine Environmental Science, Xiamen University
574	Recent emerging shifts in precipitation intensity and frequency in the global tropics observed by satellite precipitation data sets Yuxia Fu/Shanghai Jiao Tong University
566	Influence of multiscale terrain on an extreme heavy rainfall event over the southeastern coast in China Zheng Ji/ State Key Laboratory of Marine Environmental Science, Xiamen University
573	The evolving distribution of humidity conditional on temperature across China in a warming world Caixia Liang/Fudan University
571	Teleconnection between summer North Atlantic oscillation and extreme compound humid-hot events in the Yangtze-Huaihe River Basin during 1961-2022 Xianyi Yang/Xiamen University
568	Boost to early spring compound heatwaves over South Asia from anomalous Tibetan Plateau atmospheric heat source Zhengrui Jin/State Key Laboratory of Tropical Oceanography, South China Sea Institute of Oceanology, Chinese Academy of Sciences
570	Impact of the Tibetan-Iranian Plateau on phase-preferred Rossby waves and related heat extremes Huayu Chen/Institute of Atmospheric Physics, Chinese Academy of Sciences
565	Changes in heatwave-driving circulation patterns under global warming Jilin Zhang/Fudan University
564	Evaluating a suitable aquaculture site selection model for cobia ( <i>Rachycentron canadum</i> ) during extreme events in the inner bay of the Penghu Islands, Taiwan Kuowei Lan/National Taiwan Ocean University

**S7-P Session 7 - Advances in the Oceanography of the Ross Sea**

16:50-18:30 Poster Hall

ID	Title
745	<a href="#">Mechanisms and impacts of extreme high-salinity shelf water formation in the Ross Sea</a> Xiaoqiao Wang/National University of Defense Technology
743	<a href="#">Salinity and temperature budgets in the Ross Sea inner continental shelf</a> Chuning Wang/Shanghai Jiao Tong University
742	<a href="#">Interannual salinity variability on the Ross Sea continental shelf in a regional ocean-sea ice-ice shelf model</a> Liangjun Yan/Southern Marine Science and Engineering Guangdong Laboratory (Zhuhai)
738	<a href="#">Tracing paleoceanographic archives of ice sheet-ocean interaction of the Drygalski Trough since Last Glacial Maximum, Ross Sea Antarctica</a> Zijian Xiao/University of Chinese Academy of Sciences, Institute of Deep-sea Science and Engineering, Chinese Academy of Sciences
737	<a href="#">Formation of dense shelf water and its effect on particle transport under different wind conditions in the Terra Nova Bay polynya</a> Heng Hu/Shanghai Jiao Tong University
735	<a href="#">The Ross Ice Shelf cavity in the new coupled model Polar-SKRIPsv2</a> Alena Malyarenko/University of Canterbury
734	<a href="#">Cross-sensor atmospheric correction for consistent remote sensing reflectance products in the Ross Sea</a> Tianhao Wang/Xiamen University
733	<a href="#">Dynamics of water mass exchange on the Central Ross Sea Slope near the Glomar Challenger Trough, Ross Sea</a> Yuanjie Chen/Shanghai Jiao Tong University
732	<a href="#">Aged dissolved organic carbon in the Little America Basin, Ross Sea: Insights from radiocarbon</a> Sunmin Oh/Seoul National University
731	<a href="#">Mechanisms of cross-slope circumpolar deep water intrusion in the Amundsen Sea, West Antarctica</a> Ziang Li/Shanghai Jiao Tong University
730	<a href="#">Research on multisource gravity data fusion methods in the Ross Sea, Antarctica</a> Long Ma/First Institute of Oceanography, Ministry of Natural Resources, School of Ocean and Earth Science, Tongji University
729	<a href="#">The Plio-Pleistocene glacial history of the Ross Sea Continental Shelf revealed by rock magnetic properties of sediment cores</a> Xiangyu Zhao/Shanghai Jiao Tong University

**S11-P Session 11 - Recent Advances in Modelling the Ocean Carbon Cycle Across Scales**

16:50-18:30 Poster Hall

ID	Title
1001	<a href="#">The role of ocean mesoscale variability in air-sea CO<sub>2</sub> exchange: A global perspective</a> Yiming Guo/Woods Hole Oceanographic Institution
988	<a href="#">Recent changes in global ocean N<sub>2</sub>O emissions and their attribution to climate modes of variability</a> Kai Ma/South China Sea Institute of Oceanology, Chinese Academy of Sciences
990	<a href="#">Simulation study on the production, distribution, and flux of global marine nitrous oxide (N<sub>2</sub>O) - Based on CESM2</a> Shiyao Zheng/Xiamen University
992	<a href="#">Retrieval of CH<sub>4</sub> concentration in global ocean surface using time-series neural networks</a> Xiaohui Zhu/Southern Marine Science and Engineering Guangdong Laboratory (Guangzhou)

ID	Title
989	Simulation of particulate organic carbon transport in the Pearl River Estuarine-Coastal Ocean, South China Sea following Typhoon Hato and Pakhar (2017) Yuanguang Huang/South China Sea Ocean Research
991	Simulating transport and distribution of marine microplastics in the Bohai Sea using a Lagrangian particle tracking approach Chen Wang/Tianjin University of Science and Technology

## S12-P Session 12 - Alleviating the Impact of Emerging Harmful Algal Blooms (HABs) to Coastal Ecosystems and Seafood Safety for a Sustainable and Healthy Ocean

16:50-18:30 Poster Hall

ID	Title
8	The impact of flooding from the Minjiang River on the succession of diatom harmful algal blooms (HABs) in the offshore of China Yun-Chi Lin/National Taiwan Ocean University
11	Real-time monitoring of <i>Phaeocystis globosa</i> blooms using buoy-based video surveillance and YOLOv8 detection model Boxing Xu/Xiamen University
148	Genetic diversity of the domoic acid-producing diatom <i>Nitzschia navis-varingica</i> (Bacillariophyceae) from the Western Pacific Suh Nih Tan/Xiamen University Malaysia
85	Phagotrophic protists vs. larger zooplankton: Which offers more practical potential for HABs mitigation? Jing Li/Minjiang University
12	Variability in hemolytic activities among different <i>Amphidinium</i> strains Hao Yuan/Xiamen University, Third Institute of Oceanography, Ministry of Natural Resources
16	Genetic heterogeneity across different ploidy levels in <i>Alexandrium minutum</i> (Dinophyceae) bloom populations Chui Pin Leaw/University of Malaya
14	Arabinose plays a key role in the colony-formation of <i>Phaeocystis globosa</i> Xin Xu/Minjiang University
28	In-situ multi-parameter automatic offshore water quality testing device Bingyan Jiang/Xiamen University
45	Spatiotemporal distribution and vertical distribution characteristics of growth-reduction of <i>Noctiluca scintillans</i> in Liushui Bay, Pingtan Island Haiyan Yao/School of Life Sciences, Fujian Normal University
51	Dynamics of dinoflagellate communities and environmental triggers of <i>Unruhadinium</i> bloom in Jiulong River Qianhui Zheng/Shantou University
98	Synthesize large-scale in situ images for training plankton detection algorithms Zhenping Li/1.Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences, 2.University of Chinese Academy of Sciences
101	An in-field electrochemical sensor for offshore pollutants detection with simultaneous calibration and detection strategy Chu Cheng/Xiamen University
94	Exploration of satellite data capabilities for detecting and distinguishing <i>Phaeocystis globosa</i> blooms: A case study of the Xiamen Bay Lufei Zheng/Xiamen University

ID	Title
150	A deep learning approach for UAV-based red tide water color anomaly detection Luo Hao/Xiamen University
149	Red tide prediction in coastal waters of Zhangzhou, China using machine learning techniques Chenxu Lin/Xiamen University
161	<i>Aliinostoc maniaoense</i> sp. nov. (Nostocales, Cyanobacteria), a newly discovered marine cyanobacterium that forms mats on coral reefs Zhaohe Luo/Third Institute of Oceanography, Ministry of Natural Resources, Xiamen
151	Distribution of <i>Pseudo-nitzschia</i> species/strains over space and time in Taiwan Strait based on metabarcoding Minlu Liu/Ministry of Natural Resources, Third Institute of Oceanography
163	Harmful heterotrophic dinoflagellates associated with mortality in tropical shrimp ponds Siti Nursyuhada Baharudin/Institute of Ocean and Earth Sciences, University of Malaya
18	Characterization of the <i>Levanderina fissa</i> bloom in aquaculture ponds and the utilization of dissolved organic phosphorus by this species Nanjing Ji/Jiangsu Ocean University
17	<i>Gonyaulax montresoriae</i> sp. nov. (Dinophyceae) from the Adriatic Sea produces predominantly yessotoxin Shuning Huang/Nanjing University of Information Science & Technology
155	Alleviating the impacts of harmful algal blooms in Malaysia Po Teen Lim/University of Malaya
93	Analysis on bacterial community of <i>Noctiluca scintillans</i> algal blooms in Pingtan Island Yunguang Liu/School of Life Sciences, Fujian Normal University
164	Dynamics of a prolonged <i>Tripos furca</i> blooms in the Penang Strait: Environmental drivers, genetic shifts, and aquaculture implications Nur Fatimah Mohd Azmi/Institute of Ocean and Earth Sciences, University of Malaya
159	The toxin-producing diversity of typical <i>Prorocentrum lima</i> (Dinophyceae) in coastal China Caihong Chen/Yellow Sea Fisheries Research Institute, Chinese Academy of Fisheries Sciences

## S20-P Session 20 - Decadal Climate Variability: Key Processes of Air-Sea Interaction, Mechanisms and Predictability

16:50-18:30 Poster Hall

ID	Title
1418	Northwest Atlantic centennial variability Houlin Xiong/Ocean University of China
1414	Climate impacts of the Atlantic Multidecadal Variability in pacemaker experiments Weimin Jiang/Xiamen University
1412	Investigating decadal variations of the seasonal predictability limit of sea surface temperature in the tropical Pacific Zhaolu Hou/Ocean University of China
1411	Climatic effects of the Indian Ocean tripole on the Western United States in boreal summer Yazhou Zhang/Ocean University of China
1410	Decadal climate prediction informed by paleoclimate records using the AI climate model ClimaX Jinfeng Luo/Xiamen University
1408	Uncertainties of ENSO-related regional Hadley circulation anomalies within CMIP6 models Wenzhu Wang/Institute of Atmospheric Physics, Chinese Academy of Sciences
1407	Dynamics of mixed layer temperature responses to the Southern Annular Mode in the subantarctic Jia Huang/Shanghai Jiao Tong University

ID	Title
1405	Mechanisms of model bias impacting responses of the Atlantic cold tongue to greenhouse warming Yun Yang/Beijing Normal University
1404	Evaluation of sea surface temperature interhemispheric dipole in CMIP6 historical simulations Qirong An/Ocean University of China
1403	Deep Atlantic multidecadal variability Jiajun Yang/Ocean University of China
134	Reconstructing the Pacific Decadal Oscillation over the last 2000 years by fusing global terrestrial and marine records Risheng Liang/Xiamen University

## S27-P Session 27 - Coastal Environment Evolution: From the Past to the Future

16:50-18:30 Poster Hall

ID	Title
76	Interannual variations of the U-shaped front in the East China Sea and its influence on the summer stratification Han Chen/Xiamen University
83	Mangrove foraminifera in sediment from Qi'ao Island, Pearl River estuary and its implications for paleoenvironment Huixian Chen/Guangdong Polytechnic of Industry and Commerce
29	Nutrient regimes shaping the diatom-dinoflagellate interdecadal succession landscape in the Bohai Sea: N-Dia/Dino-D multi-channel flow modeling Kan Chen/First Institute of Oceanography, Ministry of Natural Resources
97	Luminescence chronology of coastal sand dunes in the northeastern South China Sea and its paleoenvironmental implications Zibin Fang/Shantou University
13	Temporal and spatial variations in surface sediment grain size in Weihai Bay and their controlling factors Yishu Hou/Xiamen University
99	Chronology of core sediments from the south coastal Bohai Sea of Eastern Asia and its implications for sedimentary history Ruolin Jiang/Shantou University
19	Adaptive responses of water flea to artificial light at night revealed through dormant egg bank in a coastal city sediment Da Li/East China Normal University
95	Landscape evolution and human activities in the lower Yellow River revealed by core chronologies Bohui Liu/Shantou university
15	Evolutionary history of the sandy coast in South China from the Middle-Late Pleistocene: A case study from Lufeng, China. Junyang Ma/Xiamen University
79	Spatiotemporal dynamics of groundwater metal elements and DOC in response to natural and human intervention in the Yellow River wetland, China Xiao Qin/Shanghai Jiao Tong Universtiy
10	Deciphering coastal environmental evolution in East and Southeast Asia: Physical, anthropogenic, and climate change drivers from the past to the future Adam Switzer/Earth Observatory of Singapore, Nanyang Technological University, Asian School of the Environment, Nanyang Technological University



ID	Title
75	Characteristics and sources of surface sediments on the northwestern shelf of the South China Sea: Evidence from clay minerals and geochemistry Anqi Wang/Hainan University
78	Spatiotemporal dynamics and drivers of coastal wetlands in Tianjin–Hebei over the past 80 years Feicui Wang/Tianjin Center, China Geological Survey (North China Center for Geoscience Innovation)
81	OSL and radiocarbon dating of core TBF-1 on the outer shelf of the East China Sea and implications for Late Quaternary stratigraphic correlation Zhongbo Wang/Shantou University
6	Holocene geomorphological evolution of a sediment-starved coastal embayment in response to sea level change: Insights from the Qing'ao Embayment, southern China Fengling Yu/Xiamen University
96	Core sediment chronology and its insights into delta processes for the Pearl River Delta Weiqi Zhan/Shantou University
100	Morphological mapping of intertidal oyster reefs based on UAV photogrammetry and deep learning Jiaquan Zhuang/Nanjing University

### S32-P Session 32 - Digital Twins of the Ocean (DTO) and Its Applications

16:50-18:30 Poster Hall

ID	Title
1468	Using deep learning to estimate the temperature, salinity, and heat-salt exchanges across the Indonesian Seas Ruijun Zhu/Xiamen University
1473	Deep-learning models and observing system simulation experiments (OSSEs) of the Indonesian Throughflow Zihao Wang/Xiamen University
1478	Temporal and spatial variations and prediction of diversity-stability relationships in fish communities of the Yellow Sea and Bohai Sea under climate change Xiaoyue Cui/Ocean University of China
1472	Regional projection on phytoplankton community Jia-Wei Shen/Tianjin University of Science and Technology
1469	Seasonal evolution and controlling factors of acidification in the Bohai Sea Wenshuo Zhang/Tianjin University
1464	Isolating the controls of stratification and eutrophication on interannual variability of coastal deoxygenation: A machine learning-based protocol Zhouxiao Liu/The Hong Kong University of Science and Technology (Guangzhou)
1467	Insights into microbial community dynamics associated with algal blooms: A co-occurrence network analysis approach Jiahong Zhu/Xiamen University
1463	Application of scene transfer algorithm in abalone measurement Yuehang Chen/Xiamen University
1462	A spatial planning model and for coastal marine use: Integrating competition and cooperation among land and sea multi-stakeholders Pei Du/Nanjing Normal University
1461	Research on water generation method based on dynamic reconstruction Hengjie Zheng/Chengdu University of Information Technology
1460	Coordinating the development of observation-based Digital Twins of the Ocean from the Biogeochemical Argo array Jonathan Sharp/University of Washington

ID	Title
1458	<a href="#">Applying deep learning to rendering extreme marine environments</a> Chenchen He/Chengdu University of Information Technology
1457	<a href="#">Research on a digital twins system for full space perception and evaluation of the Dingzi Bay ecosystem</a> Song Gao/North China Sea Marine Forecast and Hazard Mitigation Center of the Ministry of Natural Resources, Shandong Provincial Key Laboratory of Marine Ecological Environment and Disaster Prevention and Mitigation
1451	<a href="#">Digital twins of the nearshore ocean for wave and storm surge disaster mitigation</a> Rui Li/North China Sea Marine Forecasting Center

### S39-P Session 39 - Ocean Boundary Layer Turbulence: Dynamics and Its Impact on the Earth System

16:50-18:30 Poster Hall

ID	Title
1140	<a href="#">The role of diurnal forcings on the merging of surface and bottom boundary layers in the coastal ocean and their implications on vertical mixing.</a> Jiahao Huang/ College of Ocean and Earth Science, Xiamen University
1138	<a href="#">Transient response of Langmuir turbulence structure to abrupt changes in surface buoyancy forcing</a> Wentao Pan/Earth Ocean and Atmospheric Sciences Thrust, The Hong Kong University of Science and Technology (Guangzhou)
1137	<a href="#">Influence of boundary layer turbulence on submesoscale mixed layer eddy-induced restratification</a> Xinghao Jiang/The Hong Kong University of Science and Technology (Guangzhou)
1136	<a href="#">The air-sea wave-induced effects on marine wind turbine array boundary layer and implications on offshore wind energy</a> Quanmu Yuan/Xiamen University
1135	<a href="#">The 3D dynamic structures of rip currents with a wave-current two-way coupling simulation</a> Yi Chen/Xiamen University
1134	<a href="#">Effects of the coupled diurnal tide-heat forcing on the evolution of surface and bottom boundary layers in the coastal ocean</a> Shenlin Liu/ College of Ocean and Earth Sciences, Xiamen University
1133	<a href="#">A transformer based approach for fusing SAR and SWIM measurement to produce better-quality wave spectrum</a> Shihao Zou/The Hong Kong University of Science and Technology (Guangzhou)
1132	<a href="#">A direct comparison of turbulent fluxes in ocean boundary layer vertical mixing parameterizations</a> Zheng Wei/The Hong Kong University of Science and Technology (Guangzhou)
1131	<a href="#">Development of Langmuir turbulence in a two-phase wave-resolved simulation</a> Yankun Liu/The Hong Kong University of Science and Technology (Guangzhou)
1130	<a href="#">Submesoscale winter bloom induced by Kuroshio-island interactions in the Southern Luzon Strait</a> Yingzhi Xu/Xiamen University

### S41-P Session 41 - The Atlantic Meridional Overturning Circulation Variability and Its Climatic Impacts

16:50-18:30 Poster Hall

ID	Title
1149	<a href="#">Leakage from the deep Western Boundary Current around Greenland</a> Xiaoyu Jia/Xiamen University
1156	<a href="#">Lagrangian perspective on the decadal variability of the subpolar AMOC</a> Yanwei Ding/Xiamen University

ID	Title
1153	Seasonal variation of water mass transformation in the subpolar North Atlantic Shiying Li/Xiamen University
1154	Observed interannual variability in the subtropical AMOC during 1993-2020 Wen Si/Xiamen University
1162	Interannual to decadal variability in the subpolar overturning circulation Wang Gang/Xiamen University
1155	Role of wind in the variability of the Atlantic Meridional Overturning Circulation Yuxin Wu/Xiamen University
1158	Deep circulation variability through the eastern subpolar North Atlantic Feili Li/Xiamen University
1161	Weakened decadal variability of ocean heat content in the North Atlantic under global warming Sheng Wu/Peking University
1152	Multi-centennial climate oscillation caused by AMOC leads to the vicissitude of Tubo dynasty Fengli An/Fudan University
1151	Deciphering the variations of global land monsoons in climatic oscillations during Marine Isotope Stage 3 Jinzhe Zhang/Institute of Atmospheric Physics, Chinese Academy of Sciences

#### S44-P Session 44-Western Boundary Currents, Eddies and Their Impacts on Multi-disciplinary Aspects

16:50-18:30 Poster Hall

ID	Title
203	Response of the North Pacific storm track activity in cold season to multi-scale oceanic variations of Kuroshio Extension system: A statistical assessment Peilong Yu/College of Meteorology and Oceanography, National University of Defense Technology
202	Interannual variability of eddy kinetic energy east of the Luzon-Taiwan Islands Xiaomei Yan/Institute of Oceanology, Chinese Academy of Sciences
218	Nitrogen fixation in the Northeastern South China Sea under the influence of El Niño Jiaxing Liu/ South China Sea Institute of Oceanology, Chinese Academy of Sciences
195	Long-term characteristic and variability of the current system in the Western Pacific: Kinematic study Jie-Hong Han/The Hong Kong University of Science and Technology
206	Deep learning-based ensemble forecast and predictability analysis of the Kuroshio intrusion into the South China Sea Junkai Qian/Hohai University
215	Paleo-productivity reconstructions along the eastern coast of Australia: Implications for the variability of the East Australian Current over the last 1000 years Zirong Huang/Department of Geological Oceanography, State Key Laboratory of Marine Environmental Science, College of Ocean and Earth Sciences, Xiamen University
201	Energy analysis of eddy-mean flow interaction based on high- resolution simulations Weijie Sun/Second Institute of Oceanography, Ministry of Natural Resources
196	The spatial pattern and mechanism in zooplankton response to mesoscale eddies in the northern South China Sea Yuan Liu/University of Chinese Academy of Sciences
207	Eddy-mean flow interactions and seasonal variability of energetics in the Brazil Current Mengdi Li/HoHai University
200	Heat and salt transports in the Luzon Strait contributed by mesoscale eddies from the Northwestern Pacific Ocean Hang Zhao/Xiamen University

**S45-P Session 45 - New Data and Technologies Driven Insights into Marine Organic Matter Cycling**

16:50-18:30 Poster Hall

ID	Title
604	Exploring dissolved organic nitrogen cycling along the river to ocean continuum: Novel insights from LC-FT-ICR MS Zhenwei Yan/The Hong Kong University of Science and Technology
603	Molecular dynamics and factors governing recalcitrance of dissolved organic matter: Insights from laboratory incubation and ultra-high resolution mass spectrometry Penghui Li/Sun Yat-sen University
600	Optimization of scopoletin-HRP fluorescence analysis of seawater hydrogen peroxide by 3-D fluorescence spectroscopy Dan Peng/Xiamen University
609	Hidden pockets of bioavailable dissolved organic matter in the deep northwest Pacific Ocean Yixian Li/Xiamen University
608	Diurnal variations in refractory dissolved organic carbon production in seagrass-dominated waters Jialin Li/Xiamen University
607	Microbes produce intrinsically refractory dissolved organic matter across oceans Ruanhong Cai/The Hong Kong University of Science and Technology
606	Dissolved organic carbon in coastal waters: Global patterns, stocks and environmental physical controls Christian Lønborg/Aarhus University
602	The indicative role of amino acids in the remineralization process of particulate organic matter in the Northwestern Pacific Ocean Mingrui Zhang/Xiamen University
594	Production of dissolved organic matter during summertime deoxygenation in a shallow coastal sea Guisheng Song/Tianjin University
595	Seasonal inverse variation between dissolved organic nitrogen and phosphorus in the surface Northwest Pacific Subtropical Gyre: Implications for nutrients cycling and nitrogen fixation Xiaolin Li/Xiamen University
599	Tracing dynamics of sedimentary dissolved organic nitrogen, phosphorus, and sulfur using optical signatures in an anthropogenic bay Zhexuan Zhang/The Hong Kong University of Science and Technology
596	Impacts of climate change and human perturbations on organic carbon burial in the Pearl River Estuary over the last century Wenpeng Li/Southern University of Science and Technology
598	The impact of water-sediment regulation scheme (WSRS) on the chemistry of dissolved organic matter in the Yellow River Estuary and adjacent waters Donglei Niu/Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences
605	Microbial mediation of organic carbon sequestration in hadal trench sediment Xiaoxia Chen/Xiamen University
597	Preservation and reactivity of organic matter in surface sediments of the largest marginal sea of the Arctic Ocean Zhongqiao Li/Second Institute of Oceanography, MNR
601	Transportation and transformation of dissolved organic matter from overlying to bottom waters of cold seeps in the South China Sea: Insights at the molecular level Shi Tang/Sun Yat-sen University

**S48-P Session 48 - Ecological and Socio-Economic Benefits of Marine Protected Areas**

16:50-18:30 Poster Hall

ID	Title
1089	Impacts of extreme climate change on the resilience of marine protected areas: A case study of the Chinese White Dolphin National Nature Reserve in the Pearl River Estuary Wenhui Wang/Macau University of Science and Technology
1079	Core transcriptional plasticity pave the ways for fish to thrive in high CO <sub>2</sub> world Jingliang Kang/The University of Hong Kong, Hainan University
1076	A survey on fish diversity in the Xisha Islands in the South China Sea based on environmental DNA metabarcoding Shengming Deng/Hainan University
1075	Current status of marine resources and its protection countermeasures in Guangxi, China Liangliang Huang/Guilin University of Technology
1074	How is the protection level of Indo-Pacific humpback dolphin in China? An assessment based on habitat suitability Xue Zhang/Xiamen University
1073	Species identification and ecological roles of goatfishes with significance for conservation and fisheries management in marine protected areas Zhisen Luo/Guangdong Ocean University
1070	Optimizing efficiency and resilience of no-take marine protected areas for fish conservation under climate change along the coastlines of China seas Bin Kang/Ocean University of China
1069	Conservation effectiveness of Chinese marine protected areas in the Western Pacific Ocean and conservation values of candidate areas for the Nanbeiji Islands National Parks Xiaohan Zhao/Second Institute of Oceanography, Ministry of Natural Resources
1068	Multifaceted biological indicators reveal an effective conservation scheme for marine protected areas Rongjie Zhao/City University of Hong Kong, State Key Laboratory of Marine Pollution
1067	Fishing survey at marine parks and marine reserve in Hong Kong waters Yan Meng/City University of Hong Kong
1066	A study on adaptive fuzzy PID control of full-vector helical propulsion robot for coral reef ecological monitoring Xingyu Zhou/Xiamen University
1065	Comprehensive benefit assessment of marine protected areas - A case study of Xiamen National Nature Reserve of Rare Marine Species in Fujian Province Xinyi Liu/Xiamen University
1064	Effects of climate change on distribution of primary prey fish species of spotted seal in Western Pacific Ocean Jiaxing Song/Ocean University of China
1063	Is seasonal closure an effective way to conserve oceanic squids—Taking Chinese autonomic seasonal closure on the high seas as an example Jintao Wang/Shanghai Ocean University

## S49-P Session 49 - Neogene Climate-Carbon Dynamics Associated with the Stepwise Closure of the Indonesian Seaway

16:50-18:30 Poster Hall

ID	Title
40	North Pacific deep circulation changes across the Mid-Brunhes Event Tan Jiyao/Tongji University
42	The evolution of oxygen concentration of North Pacific deep water and its climatic effects during Mid-Pleistocene Transition Yixu Zhang/State Key Laboratory of Marine Geology, Tongji University
44	Palaeoredox reconstruction in the Bay of Bengal since the Miocene Feng Ye/Guangzhou Institute of Geochemistry
48	The Impacts of Maritime Continent topography in preindustrial and the Pliocene Warm period using HadCM3 Xin Ren/University of Bristol
50	Variations in paleoproductivity off Northwestern Australia across the Middle Pleistocene Transition Li Gong/Christian-Albrechts-University Kiel
52	Assessing the variability of Dissolved Organic Carbon Degradability at different radiation intensity: implications for long-term carbon-climate dynamics Shuwei Liu/Tongji University
54	Role of Panama uplift on Northern Hemisphere Glaciation Hua Feng/Tongji University, Fourth Institute of Oceanography, Ministry of Natural Resources
57	Reconstruction of the bottom water temperature in the Middle Miocene Pacific Ocean: Implications for climate change Chunyu Yang/Tongji university
59	Depth migration of oxygen minimum zones on the eastern tropical Pacific during the Middle Miocene climatic transition Jingjing Liu/Tongji University, Hebei GEO University
61	Low-latitude hydroclimate change since the Late Miocene: Evidence from XRF core scanning on ODP Site 1143 Jianxiong Hu/Tongji Univeristy
65	Western Pacific deep circulation changes caused by the closure of Indonesian Seaway since the Late Miocene Jing Xu/Tongji University
135	Upper ocean temperature change caused by the closing of the Indonesian Seaway from the Late Miocene to Early Pliocene Yifan Ding/Tongji University
64	Deep Indian Ocean carbon storage across the MPT. Mingtian Yang/Tongji University

## S53-P Session 53 - Geological Analogues for Future Warm Ocean and Climate

16:50-18:30 Poster Hall

ID	Title
1591	No detectable long-term tendency in the seasonal variability of sea surface carbon isotope ratios in the South China Sea during the Late Quaternary Zijie Yuan/Tongji University
1597	Expansion of grasslands across glacial Sundaland caused by enhanced precipitation seasonality Enqing Huang/State Key Laboratory of Marine Geology, Tongji University

ID	Title
1596	<a href="#">Orbital and millennial variations in wildfires recorded in the East Siberian Arctic Shelf over the Last Glacial Cycle</a> Yaru Liu/First Institute of Oceanography Ministry of Natural Resources
1598	<a href="#">Seismic stratigraphy of the Bellingshausen Sea, Western Antarctica</a> Vanda Sergeeva/FSBI "VNIIOkeangeologia"
1592	<a href="#">What does the Messinian Salinity Crisis teach us about Mediterranean paleo-environmental upheavals?</a> Virginie Gaullier/Laboratory of Oceanology and Geosciences, University of Lille
1593	<a href="#">Climate sensitivity of the Pliocene Warm Period indicated by two-dimensional EBM Model</a> Zhiyu Hao/Tongji University
1601	<a href="#">The latitudinal migration of intertropical convergence zone in response to precession across the Holocene</a> Yuchen Yang/Xiamen University
1595	<a href="#">The mechanism of boron incorporation into foraminifera: Insights from numerical modeling</a> Na Qian/China University of Geoscience (Beijing)
1594	<a href="#">Comparing and evaluating nudging for simulating precipitation and oxygen isotopes in iCAM6 model</a> Yuan Gao/Xiamen University

## **S72-P** Session 72 - Sea Turtle and Marine Mammal Conservation: Management, Academic and Outreach Perspectives

16:50-18:30 Poster Hall

ID	Title
542	<a href="#">Nest productivity for green turtles (<i>Chelonia mydas</i>) at Qilianyu of Xuande Islands, South China Sea</a> Wenxiang Gao/Xiamen University
541	<a href="#">Overview of the current status, challenges and opportunities of sea turtle research and conservation in China – Finding the key to push forward conservation actions across disciplines and boundaries</a> Connie Ka Yan Ng/Department of Chemistry and State Key Laboratory of Marine Pollution, City University of Hong Kong
540	<a href="#">Sand temperature fluctuation and risk analysis of female-biased nests at the green turtle nesting ground of Qilianyu, Xisha Islands</a> Chenrui Jiang/Xiamen University
539	<a href="#">New management unit for conservation of the endangered green turtle <i>Chelonia mydas</i> at the Xisha (Paracel) Islands, South China Sea</a> Shiyu Guan/Xiamen University
533	<a href="#">QR code mark traceability test— Innovative application of Internet of Things technology in sea turtle rescue</a> Zhongrong Xia/Guangdong Huidong Sea Turtle National Nature Reserve Bureau
532	<a href="#">Effect of beach erosion and typhoon on green turtle nesting grounds and implications for conservation management at Xisha Islands, South China Sea</a> Ting Zhang/Hainan Normal University, Hainan Sansha Provincial Observation and Research Station of Sea Turtle Ecology
531	<a href="#">Umbrella effect of spotted seal conservation and achieving 30×30 targets in the Yellow Sea ecoregion</a> Hongfei Zhuang/First Institute of Oceanography, Ministry of Natural Resources
529	<a href="#">Research on antibiotic resistance genes in wild and artificially bred green turtles (<i>Chelonia mydas</i>)</a> Xin Niu/Hainan Normal University
525	<a href="#">Innovative approaches in sea turtle conservation</a> Song Liu/WWF China
483	<a href="#">Eco-region based identification of marine key biodiversity areas in China's coastal waters</a> Weiwei Yu/Third Institute of Oceanography, Ministry of Natural Resources

## January 16, 2025 (Thursday)

### S6-P Session 6 - Tropical Cyclone-Ocean Interactions: From Weather to Climate Scales

16:50-18:30 Poster Hall

ID	Title
657	Tropical cyclones related wind power on oceanic near-inertial oscillations Sheng Lin/Second Institute of Oceanography, Ministry of Natural Resources
628	A case study of typhoon intensified by the marine heatwave in the Kuroshio Extension Region Jinlin Ji/Nanjing University of Information Science and Technology
630	Observational analysis of vertical heat flux caused by typhoon-induced near-inertial waves under the modulation of mesoscale eddies Xiaojie Lu/Nanjing University of Information Science and Technology
656	The impact of tropical cyclone outer size on ocean surface responses Zhenxin Ruan/Zhejiang Ocean University
901	Widespread sea surface salinification induced by tropical cyclones over the Changjiang River Plume Mengya Huang/Ocean University of China
654	Fewer tropical cyclones yield more near-inertial wind work to the global ocean over the past four decades Yonggui Ma/South China Sea Institute of Oceanology, Chinese Academy of Sciences
644	ENSO modulating tropical cyclone geneses in Fall and Winter seasons over the South China Sea Yanping Shi/South China Sea Institute of Oceanology, Chinese Academy of Sciences
641	Tropical cyclone-induced ecological responses and their feedback on physical fields: A case study for Hurricane Fernanda (2017) Shuoni Ye/Institute of Oceanology, Chinese Academy of Sciences,
638	Global analysis of tropical cyclone trajectories and their geographical influences Xueling You/Shanghai Jiao Tong University, Second Institute of Oceanography
633	Competition between ocean thermal structure and tropical cyclone characteristics modulates ocean environmental responses in the Yellow and Bohai Seas Xiuting Wang/Second Institute of Oceanography, Ministry of Natural Resources
631	Marine phytoplankton responses to typhoon events with different tracks in the Pearl River Estuary based on numerical simulation Xin Zhang/Xiamen University
629	The near-inertial waves observed in the southern Bay of Bengal Yingyu Peng/School of Oceanography, Shanghai Jiao Tong University
655	Reinforcing the effect of warm ocean anomalies in the South China Sea on the extended tropical-depression-induced heavy rainfall event in Hainan Island Sai Hao/National Marine Environment Forecasting Center

### S14-P Session 14 - The Importance of Benthic Fauna in a Changing Ocean

16:50-18:30 Poster Hall

ID	Title
346	Spatial patterns of microbial communities in intertidal sediments from the Yellow River Estuary, China Zhe Wang/1. College of Marine Life Sciences and Frontiers Science Center for Deep Ocean Multispheres and Earth System, Ocean University of China 2. Institute of Evolution and Marine Biodiversity, Ocean University of China
343	Microbial residual carbon – Proxy to understand benthic biocomplexity in coastal South Arindam Roy/Department of Biological Sciences, IISER Kolkata



ID	Title
348	Impacts of aquaculture cycles in mudflats on macrofaunal functional diversity and sediment heavy metal contamination Xiayu Ouyang/Ocean University of China
345	Bioassessment of benthic ecological quality using free-living marine nematodes in intertidal regions Susu Jia/College of Marine Life Sciences, and Frontiers Science Center for Deep Ocean Multispheres and Earth System, Ocean University of China, Key Laboratory of Evolution & Marine Biodiversity (Ministry of Education) and Institute of Evolution & Marine Biodiversity, Ocean University of China

### S15-P Session 15 - Ocean deoxygenation: drivers, trends, and biogeochemical-ecosystem impacts

16:50-18:30 Poster Hall

ID	Title
404	Investigating the tropical Atlantic OMZ expansion using machine learning with datasets of varying spatial resolutions Qi Zhang/Georgia Institute of Technology
398	Predictability of Southern Ocean dissolved oxygen: Bayesian1 vs. deterministic approach to Forecasting2 Gian Giacomo Navarra/Princeton University
393	Linear inverse model approach to diagnose the variability of dissolved oxygen in the North Pacific Daoxun Sun/Laoshan Laboratory
406	Physical-biogeochemical coupling mechanisms of deoxygenation events in the East China Sea Xiaoping Xu/Department of Physical Oceanography, College of Ocean and Earth Sciences, Xiamen University
408	The effects of seasonal wind regimes on the evolution of hypoxia in Chesapeake Bay: Results from a terrestrial-estuarine-ocean biogeochemical modeling system Youchang Zheng/State Key Laboratory of Tropical Oceanography, South China Sea Institute of Oceanology Chinese Academy of Sciences
401	Drivers, trends, predictability, and ecosystem implications of the Arabian Sea Oxygen Minimum Zone Akash Somasekharan/Faculty of Ocean Science and Technology, Kerala University of Fisheries and Ocean Studies, Kochi, Nansen Environmental Research Centre (India), Kochi
410	Socioeconomic drivers of water quality in the central plain of Thailand rivers Khanittha Uthaipan/Xiamen University
395	Sediment oxygen uptake and hypoxia in coastal oceans, the Pearl River Estuary region Jing Sun/The Hong Kong University of Science and Technology
1061	Overestimation of microbial community respiration caused by nitrification, and the identification of keystone groups associated with respiration Lianbao Zhang/Shandong University
416	How microbial quantity and community structure contribute to coastal seasonal hypoxia? Jiarong Hu/Sun Yat-sen University
403	Pathogenic bacteria dynamics under oxygen depletion in coastal waters: Insights from the central Bohai Sea Yiyan Guo/China University of Geosciences

## S17-P Session 17 - Advances in Coastal Hydrodynamics and Sediment Dynamics for a Sustainable Ocean

16:50-18:30 Poster Hall

ID	Title
254	<a href="#">Anthropogenic eutrophication and stratification strength control hypoxia in the Yangtze Estuary</a> Ya Ping Wang/State Key Laboratory of Estuarine and Coastal Research, School of Marine Sciences, East China Normal University, School of Geography and Ocean Science, Ministry of Education Key Laboratory for Coast and Island Development, Nanjing University
255	<a href="#">Simulated characteristics of estuarine fronts in the Changjiang River Delta</a> Qing Tian/Nanjing University of Information Science and Technology
275	<a href="#">Dispersal of the Changjiang River water in East Asian shelf seas</a> Cheng Peng/College of Ocean and Earth Sciences, Xiamen University
269	<a href="#">Energetics and seasonal dynamics of M2 internal tides in the Changjiang River Estuary: Observations and modeling insights</a> Xinting Lin/State Key Laboratory of Estuarine and Coastal Research, East China Normal University
247	<a href="#">Coastal eddy distortion contributes to the cross-shore and vertical tracer transport</a> Rui Pan/Shanghai Jiao Tong University
264	<a href="#">Turbulence intermittency effects on the initiation threshold of sediment motion in natural waters</a> Renzhi Li/East China Normal University
253	<a href="#">Submesoscale processes in the Zhe-min coastal front area: Spatiotemporal features and generation mechanisms</a> Zibin Guo/State Key Laboratory of Marine Environment Science, Xiamen University
257	<a href="#">Observations of turbulence on the lutocline in a hyperturbid estuary</a> Hao Wu/East China Normal University, Kiel University
262	<a href="#">Cross-shore sediment transport on an open tidal flat: Wind-driven flow reversal and fluid mud</a> Yun Peng/Nanjing University
271	<a href="#">Wind and wave effects on the dispersal of the Pearl River-derived sediment over the shelf</a> Guang Zhang/Sun Yat-sen University
246	<a href="#">Effects of different sacrificial piles arrangements around the monopile on residual currents in an ideal rectangular bay</a> Xudong Liu/Shantou University
274	<a href="#">The role of tropical cyclone on Changjiang River subaqueous delta geomorphology: A numerical investigation of Tropical Cyclone Danas (2019)</a> Bixuan Tang/East China Normal University
265	<a href="#">Sediment fluxes and mechanisms in a macro-tidal turbid estuary during typhoon events</a> Mingchen Fang/Zhejiang University
243	<a href="#">Numerical study on the oxygenation effect of deflector-type artificial downflow device</a> Bingyue Song/Kunming University of Science and Technology
252	<a href="#">Estimating the effect of artificial nourishment on tidal flat morphodynamics using dynamic equilibrium theory</a> Tianping Xu/Sun Yat-sen University
260	<a href="#">Hydroacoustic measurements highlight channel impact on macrotidal mudflat morphodynamics</a> Chao Gao/Nanjing University
250	<a href="#">Machine learning-based integrated ecosystem service interactions in the coastal wetland of the Bohai economic belt</a> Ting Lu/Nanjing University
249	<a href="#">The influence of vegetation on sediment transport and topographic evolution in the tidal flat of the macro-tidal turbidity estuary, Hangzhou Bay</a> Fangzhou Shen/Zhejiang University

## S18-P Session 18 - The River-Estuary-Bay Continuum: Unveiling the Carbon and Nitrogen Cycles Under Global Change

16:50-18:30 Poster Hall

ID	Title
1608	<a href="#">Nitrogen isotope tracing the transformation of riverine dissolved organic nitrogen in semi-enclosed bay</a> Jiping Wang/Ocean University of China
1607	<a href="#">Seasonal variation of pCO<sub>2</sub> in the coastal waters of the Pearl River Estuary and its influencing factors: A model study</a> Gang Guo/Tianjin University
1606	<a href="#">Seasonal variations of air-water CO<sub>2</sub> flux and coastal acidification in a tropical lagoon</a> Jianzhong Su/School of Marine Science and Engineering, Hainan University, State Key Laboratory of Marine Resources Utilization in South China Sea, Hainan University
1509	<a href="#">Nutrients fluxes with rivers runoff and response of receiving basins ecosystems on both sides of the Kamchatka Peninsula</a> Pavel Semkin/Russian Academy of Sciences, Russia, Il'ichev Pacific Oceanological Institute, Far Eastern Branch, Vladivostok
1507	<a href="#">Multi-tracer evidence of hydrology and primary production controls on dissolved organic matter composition and stability in the semi-arid aquatic continuum</a> Mingyu Shao/Chinese Academy of Sciences, State Key Laboratory of Environmental Geochemistry, Institute of Geochemistry
1506	<a href="#">The rates of pore water exchange and the related carbon fluxes in mangrove in Zhangjiang River Estuary, China</a> Lihui Gu/Xiamen University
1503	<a href="#">Near-real-time monitoring of global ocean carbon sink</a> Piyu Ke/Tsinghua University
1502	<a href="#">Nitrogen cycling in a subtropical river-estuary-coast continuum</a> Nengwang Chen/State Key Laboratory of Marine Environment Science, Fujian Provincial Key Laboratory for Coastal Ecology and Environmental Studies, College of the Environment and Ecology, Xiamen University
1501	<a href="#">Drought effects on particulate organic matter dynamics in Changjiang Estuary and its adjacent marginal seas: A spectroscopic perspective</a> Luning Tu/East China Normal University
1498	<a href="#">Major processes controlling the nitrogen cycling and transport across the mangrove-salt marsh-estuarine continuum</a> Fenfang Wang/Jimei University
1497	<a href="#">Surface water pCO<sub>2</sub> and air-sea fluxes in the southeastern coast of China: Synthesis of a 22-year dataset of field observation</a> Dezhi Bu/ State Key Laboratory of Marine Environmental Science, Xiamen University
1496	<a href="#">Effect of nitrogen nutrients on the photochemical processing of dissolved organic matter in estuarine environments</a> Zexuan Song/Xiamen University
1495	<a href="#">Deciphering the effects of hydrological, biogeochemical and anthropogenic factors on nitrogen species in a subtropical watershed using multiple isotopes</a> Anqi Yao/Shantou University
1494	<a href="#">Kinetic isotope effect of labile organic matter in the coastal sediment of Northern South China Sea</a> Naican Hu/State Key Laboratory of Marine Environmental Science, Xiamen University
1493	<a href="#">Carbon isotopes signatures of solid-phase extracted dissolved organic carbon (DOC) in the Han River, South Korea</a> Jieun Choi/Seoul National University

## S19-P Session 19 - Marine Plankton Ecosystem and Global Climate Change

16:50-18:30 Poster Hall

ID	Title
813	Biogeographic patterns of phytoplankton diversity in Bohai and Yellow Seas driven by temperature fronts Shuya Liu/Institute of Oceanology, Chinese Academy of Sciences, Center for Ocean Mega-Science, Chinese Academy of Sciences, Qingdao Marine Science and Technology Center
800	Low light induces distinct energy and resource allocation in calcareous macroalgae <i>Halimeda opuntia</i> and <i>Amphiroa fragilissima</i> Hao Zhang/South China Sea Institute of Oceanology, Chinese Academy of Sciences
794	Elevated temperature as the dominant stressor on the harmful algal bloom-causing dinoflagellate <i>Prorocentrum obtusidens</i> in a future ocean scenario Weiping Zhang/College of Environment and Ecology, Xiamen University
792	Unraveling the assembly mechanisms and temporal patterns of protist cell-associated and free-living bacterial communities during two <i>Prorocentrum shikokuense</i> blooms Xiaoyu Wang/Xiamen University
791	Small eukaryotic phytoplankton drive responses of primary production to elevated CO <sub>2</sub> in the (sub)tropical ocean Rongbo Dai/State Key Laboratory of Marine Environmental Science, Xiamen University
789	The contribution of biophysical and biochemical CO <sub>2</sub> concentration mechanisms to the carbon fixation of <i>Ulva prolifera</i> Xiaohua Zhang/Binzhou Medical University
788	The summer pattern of phytoplankton pigment assemblages in response to water masses in the Yellow Sea Ting Lyu/Ludong University
786	Effect of increased CO <sub>2</sub> and iron limitation in coastal and oceanic strains of <i>Synechococcus</i> Huan Wang/State Key Laboratory of Marine Environmental Science, Xiamen University
785	Community variations of size-fractionated haptophytes in the Western Pacific Ocean Wenlu Li/ State Key Laboratory of Marine Environmental Science, Xiamen University
784	Effects of Yellow Sea Warm Current on zooplankton community composition and functional groups in winter Ruping Ge/Ocean University of China
783	<i>Variovorax xiamenensis</i> sp. nov., can degrade methylphosphonate and release methane Yu Wang/Xiamen University
782	Reorganization of subtropical phytoplankton communities in the warming ocean Ye-hong Xin/Xiamen University
781	Phytoplankton miniaturization in Hong Kong coastal waters Hongbin Liu/ Department of Ocean Sciences and Division of Life Sciences, School of Science, The Hong Kong University of Science and Technology
780	Warming effects on heterotrophic bacterial growth in subtropical coastal waters Qingyu Feng/Xiamen University
766	Similar depth profile of dominant <i>Synechococcus</i> and <i>Prochlorococcus</i> ecotypes Chunshan Li/South China Sea Institution of Oceanology, Chinese Academy of Sciences
757	The settling mechanism of <i>Noctiluca scintillans</i> and its implications for coastal ecosystem Sheng-Fang Tsai/National Taiwan Ocean University

**S21-P Session 21 - Leveraging Autonomous Platforms to Study Marine Biogeochemistry and Ecosystem Dynamics**

16:50-18:30 Poster Hall

ID	Title
1109	Investigation of phytoplankton bloom dynamics and underlying mechanisms in the global ocean through BGC-Argo observations Yanting Du/Xiamen University
1107	Unveiling the dynamic carbon pathways using BGC-Argo: High-frequency deep-sea carbon export and upper ocean interactions in the marginal sea of Western Pacific Ocean Yibin Huang/Xiamen University
1105	Evaluating Kuroshio Extension carbon subduction-pump from Biogeochemical-Argo floats Wenjing Zhong/College of Ocean and Earth Sciences, Xiamen University
1103	Mesoscale eddy modulation of subsurface chlorophyll maximum layers in the South China Sea Wenlong Xu/Jiangsu University of Science and Technology
1099	Diel variation of mesozooplankton in ecotone of coral community: Based on high temporal resolution in situ imaging Ziyi Wu/Xiamen University
1098	ChinaPlanktonNet: Towards an AIoT-based in situ imaging network for marine plankton observation Zekai Zheng/Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, Shandong Normal University
1091	Sensitivity analysis of the Carbon-Based Productivity Model (CbPM) in the Arabian Sea Rupam Kalita/Indian National Centre for Ocean Information Services, Kerala University of Fisheries and Ocean Studies
1094	The spatiotemporal dynamics of the dissolved organic carbon in the North Pacific and its contribution to carbon export Jinpeng Zhou/Xiamen University

**S23-P Session 23 - Sea Level Rise: Understanding, Observing, and Modelling**

16:50-18:30 Poster Hall

ID	Title
1117	Near-term future sea-level projections supported by extrapolation of tide-gauge observations Jinping Wang/Ocean University of China
230	The IAP dataset supported by high performance computing: From in situ observations to grided product Huifeng Yuan/Chinese Academy of Sciences, Computer Network Information Center
229	The influence of high-frequency tidal processes on the shoreward transmission of low-frequency open-ocean signals Wenqiang Lin/Xiamen University
228	Ocean dynamical processes underlying ocean bottom pressure variability in the Southern Ocean Xuhua Cheng/Hohai University
227	Remarkable pattern of global warming in ocean heat content Lijing Cheng/Institute of Atmospheric Physics, Chinese Academy of Sciences
226	Progress and gaps in regional sea level projections Xuebin Zhang/CSIRO
224	Understanding changes in regional halosteric sea level and ocean salt content under anthropogenic warming Kewei Lyu/Xiamen University

ID	Title
173	Research of response of ocean salinity and meridional salt transport to climate change based on climate model simulations Qianqian Yuan/Xiamen University
172	Decomposition of multi-scale contributing factors to extreme sea levels in the western tropical Pacific Sihan Jia/Xiamen University
171	Analysis of coastal sea level change in the Southeast Asian region based on coastal satellite altimeter product Xuqiang Song/Xiamen University
170	Exploring the externally forced sea-level signal and natural variability in the Pacific Ocean during the altimeter-era Ruhui Huang/Xiamen University
169	Ongoing shifts in the Southern Ocean warming Yutong Zheng/Xiamen University
168	The impact of sea level changes on mangrove establishment around Sundaland since the Last Glacial Maximum Syeda Maksuda Yeasmin/South China Sea Institute of Oceanology, Chinese Academy of Sciences
167	Two-dimensional numerical simulation of tides in the coastal waters of China based on SCHISM Fu Huiqing/NMEFC
166	Estimation of ocean warming acceleration based on observation records Yan She/Xiamen University
165	Subpolar Southern Ocean sea level interannual variabilities and mechanisms from multi-mission satellite altimetry Jianjie Feng/Xiamen University
624	Sea level rise and storm surge projections for design criteria in the Singapore Strait David Colin Van Senden/Royal Haskoning DHV

## S24-P Session 24 - Estuaries and Coastal Environments Stress - Observations and Modelling

16:50-18:30 Poster Hall

ID	Title
722	Quantifying surface shelf water export in the southern middle Atlantic Bight using a Lagrangian particle tracking approach Shun Mao/Woods Hole Oceanographic Institution
721	Interactions between marine heatwaves and mesoscale eddies in the South China Sea Wenjin Sun/Southern Marine Science and Engineering Guangdong Laboratory (Zhuhai), Nanjing University of Information Science and Technology, GEOMAR Helmholtz Centre for Ocean Research Kiel, State Key Laboratory of Satellite Ocean Environment Dynamics, Second Institute of Oceanography
719	Spatiotemporal variability and dynamics of nutrient fluxes in the Pearl River Basin Ying Zhang/The Hong Kong University of Science and Technology
717	Near-future climate projection of water quality in the Pearl River Estuary based on an explainable machine learning method Jiangnan He/Sun Yat-Sen University
716	Nutrient budget and dynamics over the East China Sea (ECS) shelf Yanning Liu/The Hong Kong University of Science and Technology
713	Warming and wetting induced by urbanization and anthropogenic heat in summer over the Pearl River Delta Wenfeng Lai/The Hong Kong University of Science and Technology

ID	Title
712	Tide-surge interactions in northern South China Sea: A comparative study of Barijat and Mangkhut (2018) Yan Chen/South China Sea Institute of Oceanology, Chinese Academy of Sciences
709	New changes and driving mechanism of salt intrusion in Modaomen Estuary Lirong Yuan/Sun Yat-sen University, School of Marine Sciences
707	Remote sensing retrievals of particulate organic carbon in the Yangtze Estuary from OLCI and its response to extreme weather events Qingwen Wang/East China Normal University
368	Yangtze River mouth circulation forecast based on four-dimensional variational method Guangpeng Liu/East China Normal University
367	Interactions of tides and surge during a typhoon in macro-tidal Hangzhou Bay Yi Wan/Zhejiang University
366	Characterization and future projection of marine heatwaves under climate change in the South China Sea Yifei Yang/Nanjing University of Information Science and Technology
365	Impacts of sediments on dissolved oxygen concentration in macro-tidal turbid Hangzhou Bay Jiayang Xu/Zhejiang University
706	Study on erosion characteristics of typical sandy coast in Shandong Province: A case in Haiyang Changle Zhang/First Institute of Oceanography, Ministry of Natural Resources
705	Modulation of the temperature field by island wake in the tidal field of the Pearl River Estuary in summer time Wang Pandeng/School of Marine Science, Sun Yat-sen University
708	Experimental study on comparative test of artificial cohesive sediment based on rheological characteristics Yuezhong Xia/Zhejiang University
357	Coastal and near-coastal eddies: Ecological impacts and climate change implications with a focus on the Capricorn eddies Zhibing Li/University of New South Wales
355	Uncertainty and estimation of empirical coefficients of the PK formula for cohesive sediment transport modeling Peng Hu/Zhejiang University
364	Historical changes of hydro and sediment dynamics due to coastline changes in Hangzhou Bay, China Li Li/Zhejiang University

## S26-P Session 26 - Microbial Activity Drives Elemental Cycling in the Deep Ocean: From Single-Cell to Community

16:50-18:30 Poster Hall

ID	Title
703	MASH-Ocean 1.0: Interactive platform for investigating microbial diversity, function, and biogeography with marine metagenomic data Yinzhao Wang/Shanghai Jiao Tong University
702	Exploring incorporation of DIC by heterotrophic prokaryotes: A key process in deep/dark ocean microbial carbon cycling Wenchao Deng/Third Institute of Oceanography, Ministry of Natural Resources
701	Determination on microbial diversity and extracellular enzyme activities in sediments from the South China Sea shelf Zishen Wang/College of Ocean and Earth Science, Xiamen University

ID	Title
700	Archaea, bacteria and protists share a depth–decay relationship of community similarity in deep oceans Wenxue Wu/Hainan University
1605	Warm eddy driving significant changes in prokaryotic growth and mortality rates in the tropical Pacific Ocean An-Yi Tsai/National Taiwan Ocean University
699	Elevated bacterial production supported by low nucleic acid prokaryotes at a cyclonic eddy edge in the northwest Pacific Junyi Ni/Xiamen University
698	Distribution patterns and interaction relationships of marine picocyanobacteria and their viruses in the South China Sea Chen Qiu/South China Sea Institute of Oceanology, Chinese Academy of Sciences
695	Cold seeps are hotspots of deep-sea nitrogen- loss driven by microorganisms across 21 phyla Qiuyun Jiang/Third Institute of Oceanography, Ministry of Natural Resources
692	Isolation and characterization of Flavobacteria phages from the sea-surface microlayer and foams of the Baltic Sea Bingli Clark Chai/Max Planck Institute for Biogeochemistry, Leibniz Institute on Aging, Friedrich Schiller University Jena/Aero-Aquatic Virus Research Group
689	Biogeochemical and physiologic observations of dark ocean respiration: The dark ocean microbial metabolism revisited Thomas Reinthaler/University of Vienna
688	Microbial activity and amino acid composition in coastal waters off Greenland Chie Amano/University of Vienna
687	Sediment iron-sulfur cycles and phosphorus recycling enhanced by chemoautotrophy in a deep-sea methane seep Yuxuan Lin/The Hong Kong University of Science and Technology

## S28-P Session 28 - Towards a Holistic Understanding of the Ocean's Biological Carbon Pump

16:50-18:30 Poster Hall

ID	Title
518	A global biological carbon pump estimate constrained from hydrographic tracer observations Wei-Lei Wang/Xiamen University
502	Variability of particulate organic carbon export in the North Pacific based on particle size distributions Dongjian Ci/Xiamen University
474	Phytoplankton carbon to chlorophyll a model development Jiang Gui/China University of Geosciences, Wuhan
471	Transformation and utilisation of <i>Chrysofila dentata</i> -derived DOM by phycosphere bacteria CA6 and CF2 under the action of exogenous factor VB12 Xueru Wang/China University of Geosciences
468	Phytoplankton in the Northwest Pacific subtropical gyre showing strong grazing pressure by microzooplankton Bingyan Lin/Xiamen University
465	Distribution patterns and regulatory mechanisms of bacterial metabolism in the euphotic and mesopelagic zones of the South China Sea and the Western Pacific Ocean Wenxin Fan/Xiamen University
460	A proof-of-concept study for the evaluation of incubation-based bacterial respiration and its implication for the metabolic balance Yao Liu/Xiamen University



ID	Title
459	Temperature-driven distribution of UCYN-B in the Northwest Pacific: Implications for global carbon and nitrogen cycles Wenfeng Yin/Xiamen University
449	A largely overlooked mechanism for marine carbon storage Lyu Yan/State Key Lab of Marine Environmental Science, College of Ocean and Earth Sciences, Xiamen University
448	The distribution and photosynthetic parameters characteristics of microphytobenthos in the intertidal zones of coastal China Qi Chen/China University of Geosciences (Wuhan)
417	Towards a better constraint in the ocean net primary production: An updated global dataset and new data-driven model Xiao Chen/State Key Laboratory of Marine Environmental Science, Xiamen University
456	Assessment of the relative contribution of vertical and lateral particulate organic carbon in the mesopelagic zone of the northern South China Sea Zeheng Lin/Xiamen University
490	Isotopic evidence for provenance and trajectory of sinking particle in the Ulleung Basin, East Sea (Japan Sea) Sun-A Lee/Kyungpook National University

### S29-P Session 29 - Advances and Challenges in Marine Carbon Dioxide Removal (mCDR)

16:50-18:30 Poster Hall

ID	Title
434	A direct coupled electrochemical system for capture and conversion of CO <sub>2</sub> from oceanwater Yueyue Kang/Xiamen University
433	A new method for stimulating the carbon sequestration capacity of microalgae by assembling a metal organic frame on the surface of spirulina Yue Rong/College of Ocean and Earth Sciences, Xiamen University
432	Design of buoyant mineral carriers for the application of ocean alkalinity enhancement Zhenghao Liu/Xiamen University
431	Impact of particle size on olivine weathering and alkalinity enhancement in coastal areas Xianning Cao/Xiamen University
430	CO <sub>2</sub> fluxes and dynamics in a tropical seagrass bed ecosystem in Southern China Min Zhang/State Key Laboratory of Marine Environmental Science, College of Ocean and Earth Sciences, Xiamen University
429	Solar-energy harvest for simultaneous fuel and disinfectant production from CO <sub>2</sub> sequestered seawater on oceangoing ships Hongwei Sun/Central China Normal University
428	Offshore CCUS-EOR economic analysis and WAG ratio optimization Shijia Ma/UK-China (Guangdong) CCUS Centre
427	Emission reduction capacity and cost-effectiveness analysis of typical carbon capture and utilization (CCU) technologies Xiaojie Yu/UK-China (Guangdong) CCUS Centre
425	Effect of coastal downwelling on carbon sequestration off the east coast of Hainan Island in winter Kuo Wang/Fourth Institute of Oceanography, Ministry of Natural Resources

### S31-P Session 31 - Blue Carbon: From Science, Restoration and Trading

16:50-18:30 Poster Hall

ID	Title
144	Increased mineral-associated organic carbon and persistent molecules in allochthonous blue carbon ecosystems Yuan Li/Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences
143	Diversity of the gut microbial communities of polychaetes from different habitats Ziqi Liu/Xiamen University
142	Release, degradation, and transformation of dissolved organic carbon in <i>Gracilaria macrophylla</i> under the influence of ocean acidification and enriched nutrients Pengcheng Xia/College of Ocean and Earth Sciences, Xiamen University
141	Plantings in salt marsh embody nature-based solutions for climate change mitigation and biodiversity conservation Ze Zheng Liu/Sun Yat-sen University
140	The carbonate chemistry spatial and temporal variabilities driven by porewater exchange in a saltmarsh-dominated estuary Mingyu Zhang/Yale University
139	Estimates of carbon exchange across sediment-water interface in a mariculture area, Sansha Bay Xinjiie Ma/Jimei University
138	Ecological and environmental effects and challenges of coastal macroalgae cultivation Yanmei Liu/Jimei University
23	Greenhouse gas emissions in aquaculture ponds at different stages of mangrove wetland restoration Yiwen Chen/Xiamen University
21	Identification of coastal aquaculture ponds using an object-oriented approach for the potential mangrove blue carbon projects Chen Lin/College of the Environment and Ecology, Xiamen University
31	Coastal blue carbon as an effective climate response: Progress in the development of blue carbon projects in carbon market Yue Meng/Xiamen University

### S33-P Session 33 - Ocean Negative Carbon Emissions

16:50-18:30 Poster Hall

ID	Title
300	Unveiling organic pollution in the Yangtze River Estuary: A study on size-fractionated composition and microbial availability of organic carbon Zongqing Lv/First institute of oceanography, Ministry of Natural Resources
295	Size-specific patterns in diversity and biogeography of fungi in the sunlit ocean Zihao Zhao/University of Vienna
292	Enhancing CO <sub>2</sub> storage and marine carbon sink based on seawater mineral carbonation Shanshan Liu/Institute of Oceanography, Chinese Academy of Sciences (IOC)
299	Dynamics of microbial metabolism on marine snow organic matter Lei Hou/Xiamen University
289	Biogeochemical responses to ocean alkalinity enhancement in Daya Bay Xuechao Wang/Southern University of Science and Technology, Chinese Academy of Sciences
297	Pioneering marine cloud brightening atomizer system for enhanced reef resilience – From concept to regional deployment Cheng Chen/Sydney Institute of Marine Science

ID	Title
293	Coastal deoxygenation and microbial communities: Unveiling microbial ecological effects driving ocean negative carbon emission in low-oxygen zones Quanrui Chen/Xiamen University
288	"Gray carbon" in sewage treatment plants: A neglected carbon sink Du Xin/Xiamen University
285	Mangrove endophytic fungal diversity via metagenomics – A systematic review Ekaterina Efimova/Xiamen University Malaysia
306	Scale matters: Contrasting microbiological responses to ocean alkalinity enhancement at 50,000 and 50L scale Yuanhao Liu/Southern University of Science and Technology
294	Mycoremediation potential of mangrove endophytic fungi for cadmium (Cd) and lead (Pb) detoxification in coastal ecosystems Peggy Pei Yee Tek/Xiamen University Malaysia
290	Interaction between bacteria and dissolved organic matter in four representative estuaries: Implication for global land-sea carbon cycle Zhenli Guo/Xiamen University
283	A new genus of marine bacteriophages: Roseobacter siphovirus R26L exhibits evolutionary traces of horizontal gene transfer across phyla Nana Wei/Xiamen University
281	Synergistic CO <sub>2</sub> removal via enhanced olivine weathering and diatom growth in the ocean Yunxuan Li/College of Ocean and Earth Sciences, Xiamen University
280	Plastic degradation by pelagic fungi Rim Mtibaa/Dept. Functional & Evolutionary Ecology, Unit for Bio-Oceanography & Marine Biology, University of Vienna

### S35-P Session 35 - Eddy Variability in the Ocean and Atmosphere: Dynamics, Parameterization and Prediction

16:50-18:30 Poster Hall

ID	Title
515	Effect of the variable Kuroshio Intrusion pathway on deep flow in the Northern South China Sea Qi Quan/East China Normal University
512	A seamless diagnosable expression for interpreting energetics of atmospheric waves at all latitudes Kaiwen Ye/Nagoya University
511	The multiscale dynamics of the extremely devastating hourly rainfall on 20 July 2021 in Zhengzhou, China Jiawang Ma/Division of Frontier Research, Southern Marine Laboratory
505	Dipole structure of vertical velocity in the mesoscale eddies of upper ocean Ridong Zhang/Ocean University of China
504	Response of ocean circulations to the vertical structure of eddy momentum parameterization Wenda Zhang/Princeton University
501	Coherent vortex structures: A study of atmospheric mesoscale dynamics over the North Atlantic Vasilisa Koshkina/Shirshov Institute of Oceanology of Russian Academy of Sciences
499	The importance of mesoscale air-sea interaction in the Agulhas Retroflexion region Yanan Zhu/Institute of Oceanology, Chinese Academy of Sciences
497	Evolutions of eddy-Kuroshio Interaction in upper and lower layers in east of Taiwan Ru Wang/Xiamen University
491	Mesoscale and submesoscale dynamics and variability in the marginal ice zone from SAR data Nikita Sandalyuk/Moscow institute of Physics and Technology

ID	Title
489	Drivers of the eddy kinetic energy trend in the Kuroshio Extension Mingshun Fan/Zhejiang University
486	Mesoscale eddies: A key factor in sargassum transport and entrainment across the Tropical Atlantic and the Intra-Americas Sea Yingjun Zhang/College of Marine Science, University of South Florida
485	Calculating steady-state linear response matrix of a two-Layer quasi-geostrophic model using the multisine excitation Xingfeng Li/Fudan University
482	Mesoscale eddies inhibit intensification of the subantarctic front under global warming Dapeng Li/Ocean University of China
480	Estimating the momentum flux induced by the vortical-wavy interaction over the global ocean Chuanyin Wang/Southern Marine Science and Engineering Guangdong Laboratory (Zhuhai)
240	Strong eddy kinetic energy anomaly Induced by baroclinic instability in the Southwest Region of the Kerguelen Plateau, East Antarctica Yunzhu He/School of Oceanography, Shanghai Jiao Tong University
212	Interaction between balanced and unbalanced motions and its associated cross-scale kinetic energy transfer Zhaofeng Yi/Xiamen University
211	Scale-dependent available potential energy in the global mixed layer Xingjun Wei/College of Ocean and Earth Sciences, Xiamen University

#### S40-P Session 40 - Geochemical Characteristics of Submarine Hydrothermal Systems and the Evolution of Hydrothermal Plumes

16:50-18:30 Poster Hall

ID	Title
194	Pulsed injections of metal-rich magmatic fluids: Key drivers of mineralization in a back-arc basin hydrothermal system Xia Zhang/Laoshan Laboratory
198	Missing dissolved arsenic in the deep seawater around various abyssal systems Yuan Chen Li/ State Key Laboratory of Marine Environmental Science, College of Ocean and Earth Sciences, Xiamen University
191	Explosive volcanic eruption reconstructed the microbial community structure in the hydrothermal plume: 85°E, Gakkel Ridge Juan Yu/Zhejiang University
190	Exploration of the hydrothermal sediment record beneath the ice-covered ocean: A case study of the Gakkel Ridge Wensheng Xue/Second Institute of Oceanography, Ministry of Natural Resources
188	Geochemical characteristics of sediments in the southern Mid-Atlantic Ridge indicate hydrothermal activity: Evidence from rare Earth elements Xin Huang/Guangdong Ocean University
186	Recycled materials and secondary processes controlled the chemical and isotopic compositions of bubbling gases discharged from two adjacent geothermal springs in the Northern Luzon Arc Jiayi Wu/Zhejiang University

**S42-P Session 42 - Deep-Time Ocean and Climate Changes: Insights from Models and Proxies**

16:50-18:30 Poster Hall

ID	Title
1384	<a href="#">Orbitally-forced Late Ordovician climate change: A record from the South China block</a> Jiawen Ouyang/China University of Geoscience (Beijing)
1383	<a href="#">Potential role of mid-latitude seaway on Early Paleogene Atlantic Overturning Circulation</a> Chenguang Zhu/China University of Geosciences (Beijing)
1382	<a href="#">Impact of orbitally forced peatland dynamics on atmospheric CO<sub>2</sub> concentration in the Mid-Jurassic</a> Zhihui Zhang/Shandong University of Science and Technology
1380	<a href="#">Enhanced terrestrial Hg fluxes during carbon release at the Toarcian Oceanic Anoxic Event (T-OAE)</a> Yuqing Zhu/China University of Geoscience (Wuhan)
1379	<a href="#">Vegetation modeling of the extinction event at the Permian-Triassic boundary</a> Yue Liu/Peking University
1378	<a href="#">Forcing of the millennial cycles in ice-free Cretaceous by eccentricity-modulated precession</a> Zhifeng Zhang/China University of Geosciences (Beijing)
1377	<a href="#">Lacustrine redox and phosphorus biogeochemical cycling across the Toarcian Oceanic Anoxic Event</a> Man Li/Hohai University
1376	<a href="#">Marine redox heterogeneity in the Western Tethys Ocean during the end-Triassic Mass extinction</a> Zhang Wei/Hohai University
1375	<a href="#">Dust fertilizes diatom blooms in favor of CO<sub>2</sub> drawdown at the onset of Antarctic glaciation</a> Yihui Chen/Peking University
1374	<a href="#">Coupled glacier-climate simulation of the Third Pole during LGM and beyond</a> Qiang Wei/Institute of Tibetan Plateau Research, Chinese Academy of Sciences
1373	<a href="#">Quantifying climate conditions for the formation of bauxites and kaolinites</a> Xiujuan Bao/Institute of Geology and Geophysics, Chinese Academy of Sciences
1372	<a href="#">Contrasting responses of Indian summer monsoon rainfall and Arabian Sea upwelling to orbital forcing</a> Qin Wen/Nanjing Normal University

**S46-P Session 46 - Oceanic Mesoscale and Submesoscale Processes: Characteristics, Dynamics & Parameterizations**

16:50-18:30 Poster Hall

ID	Title
1366	<a href="#">Possible dynamics of eddy effects on chlorophyll in Northern South China Sea in 2018 summer</a> Lin Guo/South China Sea Institute of Oceanology, Chinese Academy of Sciences
1364	<a href="#">Dynamics of submesoscale processes and their influence on vertical heat transport in the Southeastern tropical Indian Ocean</a> Yifei Zhou/Hohai university
1362	<a href="#">Spatial variation of diapycnal mixing estimated from high-resolution seismic images of subsurface eddies, Bering Sea</a> Linghan Meng/Tongji University
1360	<a href="#">Observations of thermohaline staircases disrupted by mesoscale eddies in the Eastern Caribbean Sea from marine seismic data</a> Shun Yang/Tongji University
1359	<a href="#">Submesoscale ageostrophic processes generated by Kuroshio under seamount forcing</a> Jingjun Rao/Shantou University

ID	Title
1356	Frontal subduction and its influences on the phytoplankton distributions on the Norwegian Sea Slope Yanlin Wang/School of Oceanography, Shanghai Jiao Tong University
1355	Temperature-salinity compensation in the Northeastern Atlantic: Scale dependence and cooling selective compensation mechanism Minqiang Chen/Sun Yat-sen University
1353	A mesoscale anticyclonic eddy with submesoscale spiral bands observed from seismic reflection sections in the Aleutian Basin, Bering Sea Peiwen Nian/Tongji University
1348	Vigorous forced submesoscale instability within an anticyclonic eddy during Tropical Cyclone "Haitang" from glider array observations Haibo Tang/Sun Yat-sen University
1343	The impact of topographic forcing on the variability of ageostrophic kinetic energy in the Kuroshio region of Japan Shen Zheyue/Shantou University
1336	Structure and dynamics of the middle layer circulation in the Northern South China Sea Yifan Xia/South China Sea Institute of Oceanology, Chinese Academy of Sciences
1335	Lagrangian versus Eulerian spectral estimates of surface kinetic energy over the global ocean Xinwen Zhang/Sun Yat-Sen University
1330	Submesoscale processes and their diurnal variations around an anticyclonic eddy with cold core Xuekun Shang/Chinese Academy of Science, South China Sea Institute of Oceanology, Chinese Academy of Science
1329	Dipole patterns of the vertical velocity in isolated oceanic mesoscale eddies induced by the $\beta$ effect Yinglin Hou/Xiamen University
1325	Anisotropic GM and Redi mixing parameters in the global ocean Weisheng Yang/Institute of Oceanology, Chinese Academy of Sciences,
1319	Improvement chlorophyll-a Chuanyang Huang/Ocean University of China

## S51-P Session 51 - The Changing Coastal Environment: From Land-Sourced Pollution to Marine Ecological Risk

16:50-18:30 Poster Hall

ID	Title
563	Pollution characteristics and ecological risks of typical organic pollutants in sediments from fishing ports in Circum-Bohai-Sea region Li Shiya/Qingdao Agricultural University
562	Responses of zooplankton communities to currents and land-based pollution in the southwestern Taiwan Strait Liang-gen Wang/Shantou University, South China Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences
561	Comprehensive assessment of antibiotics pollution and ecological risks in the East China Sea Feng Cao/Peking University
560	Microbial greenhouse gases metabolism potentials in coastal environment: A case study of Hangzhou Bay Yuhan Zheng/Peking University
559	Autophagy and apoptosis and their interactions play pivotal role in coping with BDE-47-induced stress in in marine microalgae Yuanyuan Li/Ocean University of China

ID	Title
558	Hexabromocyclododecane-induced reproductive toxicity in <i>Brachionus plicatilis</i> : Impacts and assessment Na Lu/Ocean University of China

#### S54-P Session 54 - Remote Sensing of Coastal Zone and Sustainable Development

16:50-18:30 Poster Hall

ID	Title
1309	Investigations into coastal hydrodynamics based on high frequency radar observations Lei Ren/Sun Yat-sen University
1301	Impact of sea surface temperature increase on the potential habitat of <i>Rastrelliger kanagurta</i> in the exclusive economic zone (EEZ) of Malaysia off the Southern South China Sea Syazwani Mohd Yusop/Xiamen University Malaysia
1297	High-quality reconstruction of SMOS sea surface salinity using deep learning-based super-resolution Zhenyu Liang/National University of Defense Technology
1304	Light absorption properties of <i>Phaeocystis globosa</i> colonies in the China Seas Xue Li/Jiangsu Ocean University
1308	Consistent retrieval of nutrient concentrations from Sentinel-2 and Sentinel-3: A case study in the Xiamen Bay Wendian Lai/Xiamen University
1298	Atmospheric correction of coastal waters based on AERONET-OC measurements Li Xu/Xiamen University
1307	Remote sensing monitoring of aquaculture in Sansha Bay using U-Net deep learning Jing Guo/Xiamen University
1306	Wave energy enhanced high power dissolved oxygen seawater battery for small-scale ocean monitoring system Shixun Li/Xiamen University
1303	GOCI-estimated air-sea CO <sub>2</sub> fluxes in the East China Sea: Patterns and variations during summer 2011–2020 Qiling Xie/Shanghai Jiao Tong University
1300	A hybrid method for obtaining improved estimates of ocean surface currents Feng Ling/Xiamen University
1299	Quality assessment of GF-2 and SuperView-1 data for marine remote sensing applications based on Sentinel-2 Yifan Xu/Jimei University
1296	Using moving-split window to identify ecotones in sea water Zhang Hanzhi/Ocean University of China

#### S55-P Session 55 - Coastal Zone Evolution and Tipping Process

16:50-18:30 Poster Hall

ID	Title
1018	Timescale of Pearl River diluted waters' expansion in summer Liu Zhiqiang/Southern University of Science and Technology, Chinese Academy of Sciences
1014	Complex network approaches to aerosol pollution Yongwen Zhang/Kunming University of Science and Technology
1013	Entropy method for detecting tipping points in coupled systems Sheng Fang/Beijing Normal University

ID	Title
1009	Seasonal and interannual features and mechanisms of surface cross-shelf connectivity in Northern South China Sea Dongliang Hou/University of Chinese Academy of Sciences, South China Sea Institute of Oceanology, Chinese Academy of Sciences
1006	Impact of current curvature on topography-induced cross-isobath motion in the Northern South China Sea Zhongya Cai/University of Macau
1005	A spatial game approach for scenario simulation of coastal zone evolution Wen Luo/Nanjing Normal University
1003	ENSO: A primary driver of the change in sea surface salinity contrasts in China Seas Zhixuan Wang/Xiamen University
1002	Ocean significant wave height estimation with spatio-temporally aware large language models Ronghui Xu/East China Normal University

## S57-P Session 57 - Contaminants Across the Marine Continuum: Behavior, Fate and Ecological Risk Assessment

16:50-18:30 Poster Hall

ID	Title
469	Mercury biomagnification of total mercury in benthic and pelagic foodwebs in Rayong Bay, Gulf of Thailand Chawalit Charoenpong/Chulalongkorn University
467	Arsenic transformation and detoxification in marine fish: Application of a physiologically based pharmacokinetic model Li Zhang/South China Sea Institute of Oceanology, Chinese Academy of Sciences
466	Seasonal dynamics and land-sea interactions of PFAS in the Beibu Gulf: Uncovering key environmental drivers Nemin Luo/Xiamen University of Technology
462	Numerical simulation of three-dimensional oil spill transport and diffusion under the condition of using dispersant Bowen Kong/Xiamen University, National Marine Environmental Forecasting Center
461	Impacts of zinc on proliferation and polyketide biosynthesis in harmful algae <i>Amphidinium carterae</i> Jiayou Ge/The Hong Kong University of Science and Technology
452	Development of purification technology for gymnodimine reference material and biotoxicity evaluation Guixiang Wang/Ocean University of China
450	Risk assessment framework and visualization of risk for coastal dredging processes Chang He/Shenzhen University
445	Target, suspect and non-target screening of emerging organic contaminants by high-resolution mass spectrometry in sewage wastewater Hong Zhang/Xiamen University
444	Effect of front on polycyclic aromatic hydrocarbons temporal-spatial variations and water-particle partitioning in the South China Sea Yali Li/School of Marine Sciences, Sun Yat-sen University, Southern Marine Science and Engineering Guangdong Laboratory (Zhuhai)
443	Novel insights into the joint phytotoxicity of nanoplastics and silver ions at environmentally relevant concentrations: A dual aggregation-induced emission bioimaging approach Neng Yan/China University of Geosciences



ID	Title
442	Deriving saltwater predicted no-effect concentration of tributyltin using taxon-specific adverse outcome pathways Zhaochuan Li/National Marine Environmental Monitoring Center
437	Different response of microalgae <i>Phaeodactylum tricornutum</i> upon exposures to crude oil water-accommodated fraction (WAF) and chemically enhanced WAF: A case study coupled with stable isotopic signatures Yadi Lou/National Marine Environmental Monitoring Center
435	Machine learning models for predicting photosensitized degradation rate constants of emerging pollutants Siyu Zhang/Chinese Academy of Sciences, Institute of Applied Ecology
418	Advancing metal risk assessment in sediments using novel isotope tracing and TKTD modeling Minwei Xie/Xiamen University
453	Simulation and parameter determination of the net sorption of phenanthrene by sediment particles Donglin Yu/Ocean University of China

### S58-P Session 58-Molecular Approaches Integrated with AI to Oceanography: From DNA to Global-Scale Processes

16:50-18:30 Poster Hall

ID	Title
756	Multi-Omic-aided discovery of bioactive peptides from marine organisms: Novel ion channel modulators and promising neurological therapeutics Guiyi Gong/The Hong Kong Polytechnic University
758	Phylogenomic analysis revealed the genome fusion during secondary endosymbiosis Li Guo/Ocean University of China
755	Distribution and evolution of CRISPR-Cas systems in diverse microbial ecosystems Yujing Liu/UCAS, BGI-Research
759	Studies on the involvement of trypsin gene in the phosphorus homeostasis in phytoplankton Xueqiong Sun/State Key Laboratory of Marine Environmental Science, Xiamen University
764	Phosphorus nutrition strategies in a Symbiodiniacean species: Implications in coral-alga symbiosis facing increasing phosphorus deficiency in warmer oceans Jiashun Li/ State Key Laboratory of Marine Environmental Science, Xiamen University
763	Adaptive symbiont dynamics in <i>Acropora digitifera</i> : Shuffling and switching during stress and recovery Li Keat Lee/University of Malaya
762	Proton-pumping rhodopsin: A key microbial strategy for fully utilizing light energy in the South China Sea Minglei Ma/University of Liège, GIGA institute
754	Community assembly and molecular ecological network of microeukaryotic plankton driven by temperature in the South Yellow Sea Tianying Chen/Ocean University of China
753	Testing the biogeographic boundary in Taiwan waters with eDNA approach Shang Yin Vanson Liu/Sun Yat-sen University (Kaohsiung)
760	Structure and assembly mechanism of phytoplankton community driven by upwelling in eastern Guangdong sea area Yuling Chen/Shantou University

## S59-P Session 59 - Impacts of Climate and Biogeochemical Extremes on Marine Organisms and Ecosystems

16:50-18:30 Poster Hall

ID	Title
1248	Assessment of Pacific oyster ( <i>Crassostrea gigas</i> ) marine aquaculture suitability in Shandong offshore area under the climate change Chunlin Li/Ocean University of China
1220	Inter- and intraspecific variation in the response of Okinawa reef corals to ocean acidification and warming Cristiana Manullang/Shantou University
771	Assessing N <sub>2</sub> fixation flux and its controlling factors in the (sub)tropical Western North Pacific through high-resolution observations Xinran Yu/State Key Laboratory of Marine Environmental Science, Xiamen University
770	Impact of climate change on global catches of marine fisheries from 1971 to 2020 Yonglin Liu/ South China Sea Institute of Oceanology, Chinese Academy of Sciences
769	Impacts of climate-driven temperature rise on brackish water fishes: A comprehensive literature review Gayathra Charuka Bandara Aldeniyagoda Gedara/University of Kelaniya
768	Effects of seawater acidification on the physiology and nitrogen metabolism of <i>Phaeocystis globosa</i> Yuping Lv/Ocean University of China
1204	Assessing multiple climate change risks and thresholds for global mangroves Huilin Liu/Xiamen University

## S60-P Session 60 - Indian Ocean Dynamics, Air-Sea Interaction and Biogeochemical Cycles

16:50-18:30 Poster Hall

ID	Title
307	Variability in phytoplankton blooms during late winter monsoon period in the Northern Arabian Sea Zhe Song/Shanghai Jiao Tong University
308	An increase in autumn marine heatwaves caused by the Indian Ocean Dipole in the Bay of Bengal Wenshu Lin/Fujian Provincial Key Laboratory of Marine Physical and Geological Processes, Third Institute of Oceanography, Ministry of Natural Resources
309	Indian Ocean intermediate water masses and their simulations by CMIP6 models Jihao Zhou/ Institute of Oceanology, Chinese Academy of Sciences
310	Simulation of air-sea interactions during monsoon intraseasonal oscillation in CMIP6 Qingjian Shi/Hohai University
311	Contribution of Agulhas leakage to the "Saltier Atlantic-Fresher Indian" trend Rong Cui/Hohai University
312	The origin of summer high-salinity water in the southern Bay of Bengal and its interannual variabilities Xinyu Lin/Third Institute of Oceanography, Ministry of Natural Resources
313	Three-dimensional climatological structures of the Arabian Sea eddies and eddy-induced flux Xutao Ni/Third Institute of Oceanography, Ministry of Natural Resources
314	Strengthened relationship between Tropical Indian Ocean Dipole and Subtropical Indian Ocean Dipole after the late 2000s Bicheng Huang/China, College of Physical Science and Technology, Yangzhou University
315	Understanding marine heatwaves in the Bay of Bengal: Progresses and future endeavors Yun Qiu/Third Institute of Oceanography, Ministry of Natural Resources, PRC

ID	Title
316	<a href="#">Reversal of multidecadal sea level trends in the Southwest Indian Ocean thermocline ridge</a> Wei Zhuang/State Key Laboratory of Marine Environmental Science, College of Ocean and Earth Sciences, Xiamen University
317	<a href="#">Asymmetric impacts of ENSO on boreal winter southern subtropical cell in the Indian Ocean</a> Yu Liu/South China Sea Institute of Oceanology, Chinese Academy of Sciences, State Key Laboratory of Tropical Oceanography
318	<a href="#">Compound marine heatwaves and tropical cyclones delay the Bay of Bengal summer monsoon onset</a> Xiong Zhou/State Key Laboratory of Tropical Oceanography, South China Sea Institute of Oceanology, Chinese Academy of Sciences
319	<a href="#">Influence of the South Asian Monsoon on freshwater exchange between the Bay of Bengal and the Arabian Sea</a> Yihao Liu/Institute of Oceanology, Chinese Academy of Sciences
339	<a href="#">Interannual time-scale dynamics of deep cross-equatorial overturning in the Indian Ocean</a> Weiqi Hong/South China Sea Institute of Oceanology, Chinese Academy of Sciences
340	<a href="#">Vertical structure and seasonal variability of chlorophyll concentrations in the Southern Tropical Indian Ocean revealed by Biogeochemical Argo data</a> Xueying Ma/South China Sea Institute of Oceanology, Chinese Academy of Sciences
341	<a href="#">Tracing the fate of excess heat in the Indian Ocean following the hiatus period</a> Yilong Lyu/ Institute of Oceanology, Chinese Academy of Sciences,

### S63-P Session 63 - Blue Economy and New Quality Productive Forces

16:50-18:30 Poster Hall

ID	Title
943	<a href="#">Harmonizing blue carbon wealth with coastal economy wealth</a> Xinyi Wu/Xiamen University
941	<a href="#">Conceptual design and characteristic analysis of floating wind turbine foundation</a> Shaohuai Li/Zhejiang University
937	<a href="#">Resilience evolution and land-sea gradient characteristics analysis of the human-sea regional system in Dalian city</a> Bo Li/Liaoning Normal University
936	<a href="#">Spatial zoning of the land-based pollution output based on land-sea coordination</a> Dong Huang/Liaoning Normal University
728	<a href="#">Assessing the carbon absorption potential of China's marine aquaculture based on real-time remote sensing imagery</a> Peng Li/Liaoning Normal University

### S66-P Session 66 - Biomarkers in the Sea: The Tracers of Key Biogeochemical Processes in the Ocean's Past, Present and Future

16:50-18:30 Poster Hall

ID	Title
627	<a href="#">Comparative metabolomics and iTRAQ proteomics analysis reveal species-specific thermal resilience pathway of Symbiodiniaceae</a> Guanjia Lin/Xiamen University
622	<a href="#">Glacial-deglacial bloom of giant diatoms in the tropical Western Pacific through utilization of subsurface nutrients</a> Wenqin Cai/Tongji University

ID	Title
621	Implications and application of UK'37 and TEX86H paleothermometer in the Taiwan Strait Chang Ran/Third Institute of Oceanography, Ministry of Natural Resources
620	Preservation of organic carbon associated with iron on continental shelves influenced by hydrodynamic processes Lihua Dong/Ocean University of China
619	Tracing the central carbon metabolism of marine archaea and bacteria using amino acid and fatty acid carbon isotopes Chuhan Lin/State Key Laboratory of Marine Environmental Science, Xiamen University
617	Cyanobacteria dominate particulate organic carbon export to the mesopelagic oligotrophic ocean Jingjing Zhang/Second Institute of Oceanography, Ministry of Natural Resources
616	Interaction between organic carbon conversion and microbial metabolism in marginal seas sediments during hydrodynamic transport Ziyang Yang/Ocean University of China
613	Tracing the sinking particles in the Ulleung Basin of the East Sea by using the alkenones Hwajeong Lee/Kyungpook National University
612	Using amino acid stable carbon isotope values to trace marine primary organic aerosols Yunfei Wu/State Key Laboratory of Marine Environmental Science, Xiamen University
626	Provenance of branched tetraether lipids affects the temperature reconstruction proxy in the Lower Bengal Fan Chengpeng Sun/Southern University of Science and Technology
611	Preliminary glycerol dialkyl glycerol tetraethers results on the Norwegian Sea during PETM (Hole 1570D) Xinyi Chen/Sun Yat-sen University

## **S67-P Session 67 - Advancing Ocean Sustainability: The Role of Early Career Ocean Professionals in Capacity Building, Ocean Literacy and Collaborative Leaders**

16:50-18:30 Poster Hall

ID	Title
686	The challenges and opportunities for ECOPs to promote ocean literacy in China Shenghui Li/Guangdong Ocean University
683	COASTAL-SOS Youth Mission: Fostering transformative ocean solutions in East Asia – A case study from Thailand Khanittha Uthaipan/Xiamen University
678	Development of GIS-based suitable site selection model for seagrass restoration with consideration of climate variability in Thailand Vasawan Worrawatanathum/Fishery College, Ocean University of China
677	Interplays of rivers, tides, and winds in shaping stratification and dissolved oxygen dynamics in the Upper Gulf of Thailand Phatcharaporn Kaewkhong/Faculty of Fisheries, Kasetsart University
675	Elevating international cooperation through early career scientist with institutional effort Xingyu Liu/the Second Institute of Oceanography, Ministry of Natural Resources
674	Layout in the field of deep-sea technology and opportunities for youth participation Chenchen Wu/Shanghai Jiao Tong University, Second Institute of Oceanography
682	Empowering Chinese ECOPs: Introducing national node development, partnerships building and career opportunities Chunhua Jiang/Joint FAO/IAEA Centre of Nuclear Techniques in Food and Agriculture

ID	Title
680	<a href="#">Analysis of capability needs for marine ecological protection practitioners - Taking the Blue Ribbon Marine Conservation Association as an example</a> Tengfei Chu/Blue Ribbon Ocean Conversation Association
676	<a href="#">Empowering Early Career Ocean Professionals (ECOP): Capacity-building strategies from IMBeR initiatives</a> Fang Zuo/East China Normal University, State Key Laboratory of Estuarine and Coastal Research, IMBeR International Project Office

## S70-P Session 70 - Internal Waves and Ocean Mixing

16:50-18:30 Poster Hall

ID	Title
666	<a href="#">Energetics and variability of semidiurnal internal tides on the East China Sea shelf: Local generation and onshore propagation</a> Tianyu Yang/Tianjin University
669	<a href="#">Temporal and spatial variations of internal tides at seamounts</a> Ruijie Zhang/Xiamen University
665	<a href="#">Characteristics of internal waves within thermohaline staircase region in the Caribbean Sea</a> Mengli Liu/Tongji University
663	<a href="#">Changes of the thermohaline staircases affected by internal waves in the eastern Caribbean Sea</a> Xinwei Li/Tongji University
662	<a href="#">Small-scale nonlinear internal waves generated in a front system</a> Yin Liu/Xiamen University
146	<a href="#">Internal lee wave generation and modulation by tidal flows</a> Lin Meiling/Xiamen University
147	<a href="#">Enhanced abyssal turbulent mixing in submarine canyons</a> Xiaoni Su/Xiamen University
659	<a href="#">Observations of locally generated internal solitary waves on the northeastern shelf of the South China Sea</a> Xiaolin Bai/Xiamen University

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## Exhibitors



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杭州海询科技有限公司成立于2011年，是一家专业从事海洋环境监测与探测装备研发生产和技术服务的国家高新技术企业。总部设在我国四大未来科技城之一的杭州未来科技城核心区块——中国(杭州)人工智能小镇，在杭州共有3个厂区，在三亚、青岛分别设有子公司、办事处。

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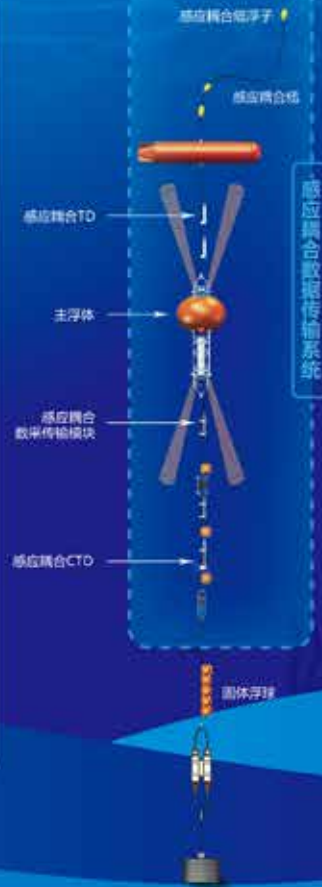
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# HANGZHOU SEA & STREAM TECHNOLOGY CO.,LTD.

Hangzhou Sea & Stream Technology Co., Ltd. was established in 2011, specializing in the research, development, production and technical services of marine environment monitoring and detection equipment. We have achieved the industrialization of multiple key marine exploration technologies, and we provide long-term services in fields such as marine scientific research, marine disaster prevention and monitoring, and marine environmental investigation.

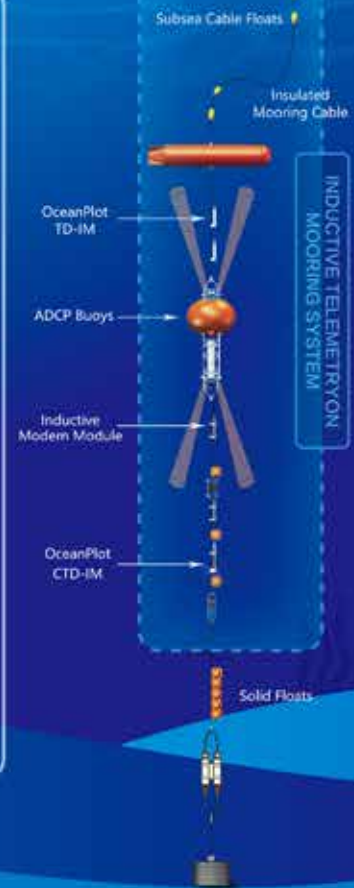
The main business covers four aspects:

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- **Support for key materials in ocean engineering.** Core products contain high-performance deep-sea solid buoyancy material floats, etc.
- **Construction of multi-platforms for three-dimensional observation of the ocean.** Core products include seabed observation platforms, mooring fixed-point observation platforms and underwater mobile observation platforms.
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The relevant products have been applied for a long time in numerous domestic sea-related universities, research institutes and other institutions, establishing the reputation of the domestic independent brand in terms of reliability and stability and providing strong support for marine disaster prevention and mitigation, scientific research, ecological protection and exploration and development.



## ⊕ Main products of the company







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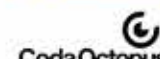
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## What we do

The objective of CLIVAR is to facilitate observations, analysis, predictions, and projections of variability and changes in the Earth's climate system, with a focus on ocean-atmosphere interactions. We address emerging issues by facilitating scientific exchanges, promoting early career researcher development, and interacting with stakeholders.

## How we work

CLIVAR brings together scientists from all over the world to plan and implement activities targeting scientific priorities assigned to global and regional panels. Each panel is typically composed of 14 members, and has various task teams and working groups with their own membership. Research foci are formed periodically to address emerging prominent scientific issues. A Scientific Steering Group oversees the implementation of CLIVAR activities and ensures that the overall project is responsive to advances in the field and the evolution of the current scientific understanding. The International Project Office provides overall support and governance to planning and implementation of CLIVAR priorities and activities.

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## Our strategy

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Protect **1%** of the protected marine areas

Protect **5%** of fishery resources

Remove **1%** of marine garbage

Support more than **50** environmental NGOs to promote industry development

## Our way of working



Sustainable funding



Technical support



Policy advocacy



Social responsibility of membership and non-membership



Public participation

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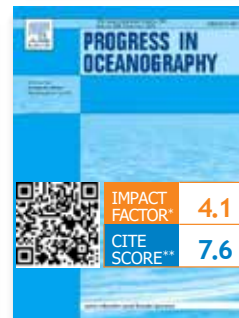
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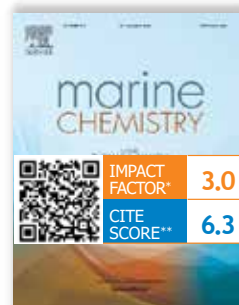
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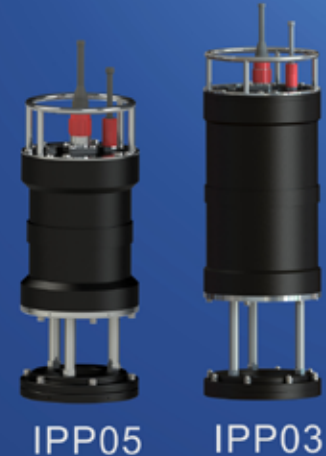


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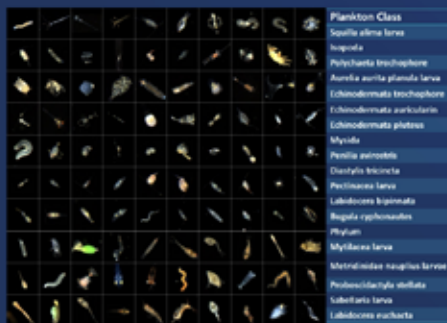
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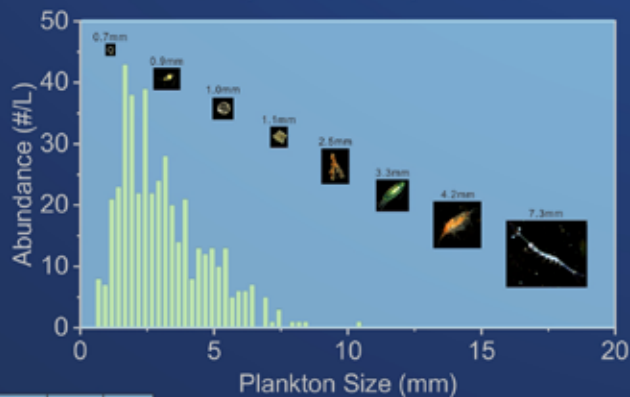
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  - AI Empowered
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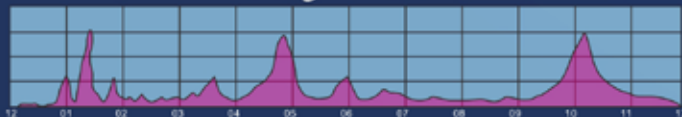
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### Size/Biovolume/Biomass



### Long Time Series



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## Company Profile 公司介绍

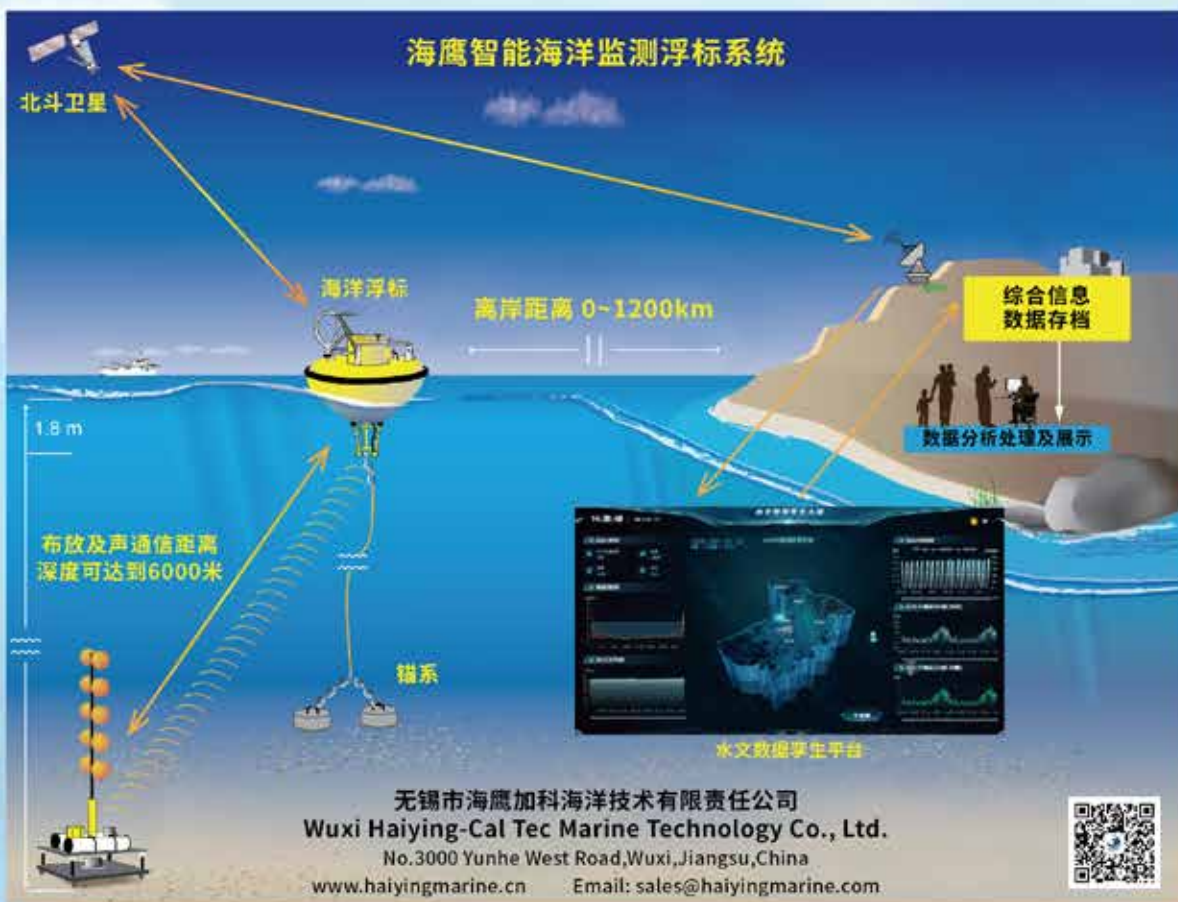


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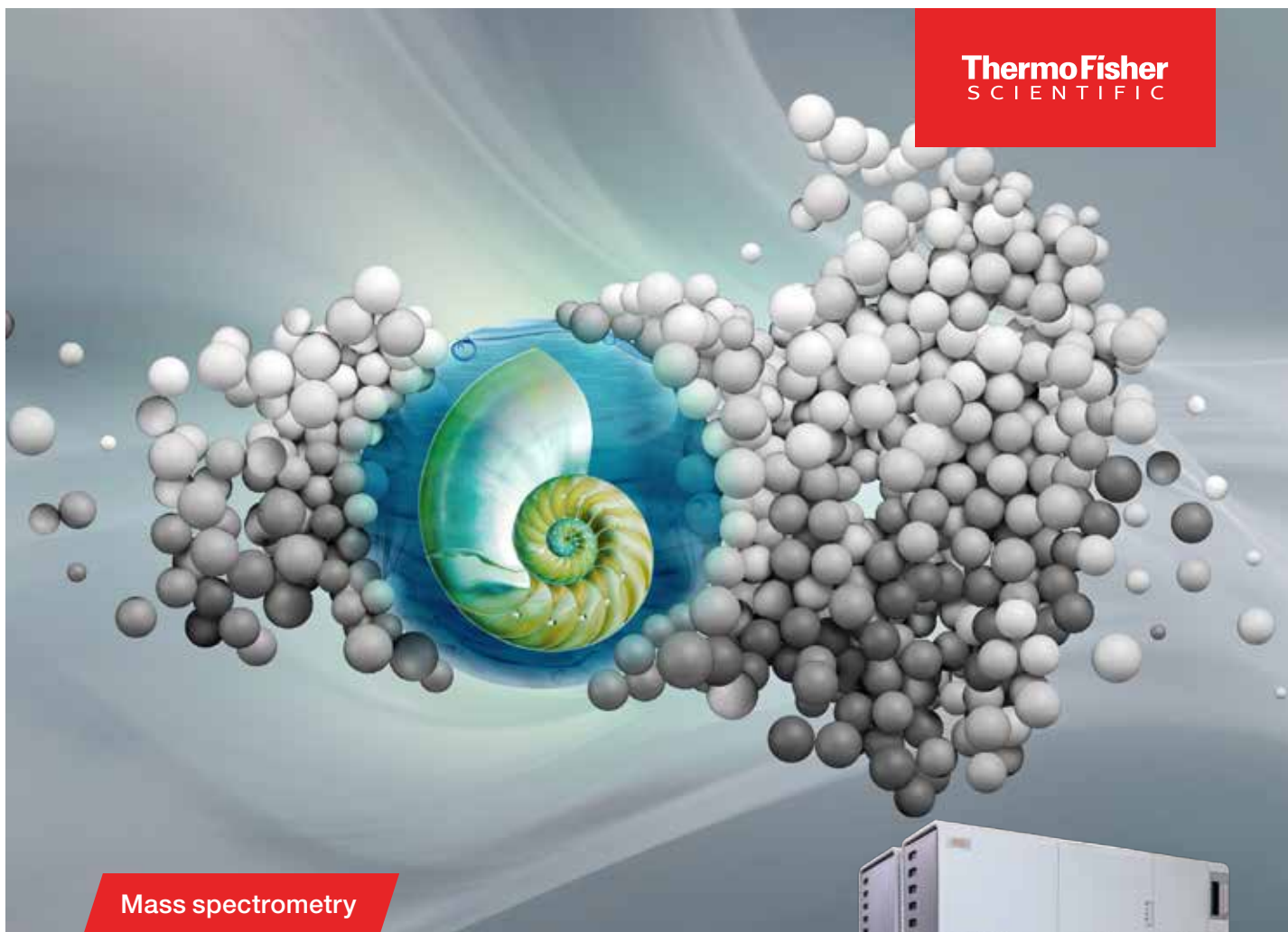
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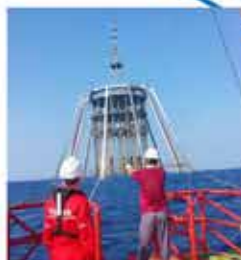
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Fig 3 - Water School - Studio Makkink & Bey

Fig 4 - Xiamen Oyster - HUANG Xuan, HU Zhewen, WANG Yi, YANG Simiao, GAO Yiyang, GAN Xinyue, PAN Ruixin, CHEN Ruiyan



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