



DIGITAL TWINS OF THE OCEAN

# International Digital Twins of the Ocean Summit 2023 2023年数字孪生海洋国际峰会

November 9 - 12, 2023 • Xiamen, China



Initiated by: DITTO

Organisers: Fujian Ocean Innovation Center

State Key Laboratory of Marine Environmental Science (Xiamen University)

Co-organisers:



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# Brief Programme of DITTO Summit 2023

Day 0: November 9 (Thursday)					
Time	Main Lobby				
1230-1400	Lunch Break				
Golden Xiamen Ballroom (3F)		Conference Room 3 (2F)		Conference Room 2 (2F)	
<b>Special Event 1:</b>	<b>Cross-sectoral Workshop on Advancing and Applying DTOs</b>	<b>Special Event 2:</b>	<b>Digital DEPTH Programme Workshop</b>	<b>Special Event 3:</b>	<b>The Early Career Ocean Professionals (ECOP) Workshop</b>
1400-1425	Opening Ceremony	1400-1430	Welcome and Introduction	1400-1420	Welcome and Introduction
1425-1600	Cross-Sectoral Talks	1430-1535	Digital DEPTH Talks	1420-1535	ECOP Talks
1600-1630	Photo and Tea/Coffee Break	1535-1545	Tea/Coffee Break	1535-1545	Tea/Coffee Break
1630-1730	Cross-Sectoral Talks	1545-1615	Digital DEPTH Talks	1545-1615	ECOP Talks
1730-1740	Closing Ceremony			1615-1730	Roundtable Discussion & Launching of ECOP-China
1800	<b>Ice-breaking Reception</b> (Venue: Color Cloud 24-Hour Restaurant)				

## Day1: November 10 (Friday)

Time	Xiamen Grand Ballroom I+II		
0830-0900	<b>Opening Ceremony</b> <i>Moderator: Fei CHAI</i>		
0900-0930	Keynote-01: Lixin WU		
0930-1000	Keynote-02: Nadia PINARDI		
1000-1030	Tea/Coffee Break & Photo		
1030-1100	Keynote-03: Jiabiao LI		
1100-1130	Keynote-04: Dake CHEN		
1130-1230	<b>Panel Discussion 1/2: DITTO &amp; UN Ocean Decade Actions</b> <i>Moderator: Martin VISBECK</i>		
1230-1400	Lunch Break		
Time	Xiamen Grand Ballroom I+II	Conference Room 2	Conference Room 3
1400-1415	PS01-1-Huijie XUE	PS02-1-Jianzhong GE	PS03-1-Toste TANHUA
1415-1430	PS01-2-Shiming XU	PS02-2-Pei DU	PS03-2-William KESSLER
1430-1445	PS01-3-Peng ZHAN	PS02-3-Zhuo ZHANG	PS03-3-Zhaohui CHEN
1445-1500	PS01-4-Zhiqiang LIU	PS02-4-Jian ZENG	PS03-4-Jianing WANG
1500-1515	PS01-5-Shangfei LIN	PS02-5-Joaquín TINTORE	PS03-5-Zhiwei ZHANG
1515-1530	PS01-6-Jia WANG	PS02-6-Hui WU	PS03-6-Zhenhua XU
1530-1545	PS01-7-Zhaoru ZHANG	PS02-7-Yun QIU	PS03-7-Feili LI
1545-1605	Tea/Coffee Break		
1605-1620	PS04-1-Shizhu WANG	PS05-1-Xiaohai YAN	PS06-1-Jianping GAN
1620-1635	PS04-2-Yann DRILLET	PS05-2-Le LIU	PS06-2-Chuyong LIN
1635-1650	PS04-3-Dehai SONG	PS05-3-Zhongping LEE	PS06-3-Yang FENG
1650-1705	PS04-4-Lei ZHOU	PS05-4-Yan BAI	PS06-4-Xueming ZHU
1705-1720	PS04-5-Anmin DUAN	PS05-5-Lian FENG	PS06-5-Lai CHAN
1720-1735	PS04-6-Xiaochun WANG	PS05-6-Shuangling CHEN	PS06-6-Aiqin HAN
1735-1750	PS04-7-Xi LIANG	PS05-Discussion	PS06-7-Wen LUO

<b>Day2: November 11 (Saturday)</b>			
<b>Time</b>	<b>Xiamen Grand Ballroom I+II</b>	<b>Conference Room 2</b>	<b>Conference Room 3</b>
0830-0845	PS07-1-Huiwang GAO	PS08-1-Conor DELANEY	PS09-1-Marjolaine KRUG
0845-0900	PS07-2-Mei ZHENG	PS08-2-Marina TONANI	PS09-2-Giles FEARON
0900-0915	PS07-3-Bangqin HUANG	PS08-3-Alain ARNAUD	PS09-3-Sang Keon LEE
0915-0930	PS07-4-Luzhen CHEN	PS08-4-Joaquín TINTORE	PS09-4-Agus ATMADIPOERA
0930-0945	PS07-5-Richard BELLERBY	PS08-5-Justin BUCK	PS09-5-Weifeng ZHANG
0945-1000	PS07-Discussion	PS08-6-Jan-Bart CALEWAERT	PS09-6-Yuwu JIANG
1000-1020	Tea/Coffee Break		
<b>Time</b>	<b>Xiamen Grand Ballroom I+II</b>		
1020-1045	Keynote-05: Minhan DAI		
1045-1110	Keynote-06: Anne COHEN		
1200-1400	Lunch Break		
<b>Time</b>	<b>Xiamen Grand Ballroom I+II</b>	<b>Conference Room 2</b>	<b>Conference Room 3</b>
1400-1415	PS10-1-Piotr ZABOROWSKI	PS11-1-Arne BERRE	PS12-1-Mark WELLS
1415-1430	PS10-2-Alain ARNAUD	PS11-2-Zhaoyuan YU	PS12-2-Peng XIU
1430-1445	PS10-3-Qi LI	PS11-3-Shenghui ZHOU	PS12-3-Weilei WANG
1445-1500	PS10-4-Nengwang CHEN	PS11-4-Cunjing XUE	PS12-7-Yuntao ZHOU
1500-1515	PS10-5-Lijing CHENG	PS11-5-Zhong PENG	PS12-4-Quan LI
1515-1530	PS10-6-Xiaogang XING	PS11-6-Justin BUCK	PS12-5-Masahiko FUJII
1530-1545	PS10-7-Artur Piotr PALACZ	PS11-Discussion	PS12-6-Hiromichi IGARASHI
1545-1600	Tea/Coffee Break		
1600-1800	<b>Poster Session</b> (Venue: Hallway)		
1830	Gala Dinner (Venue: Xiamen Grand Ballroom I+II)		

<b>Day3: November 12 (Sunday)</b>			
<b>Time</b>	<b>Xiamen Grand Ballroom I+II</b>	<b>Conference Room 2</b>	<b>Conference Room 3</b>
0830-0845	PS13-1-Yann-Hervé De Roeck	PS14-1-Yuntao WANG	PS15-1-Daisuke MATSUOKA
0845-0900	PS13-2-Yu TIAN	PS14-2-Jing SUN	PS15-2-Changming DONG
0900-0915	PS13-3-Hongyuan LI	PS14-3-Isa ELEGBEDE	PS15-3-Xue JIANG
0915-0930	PS13-4-Wen-Miin TIAN	PS14-4-Shenghui LI	PS15-4-Takero YOSHIDA
0930-0945	PS13-5-Qiang DENG	PS14-5-Ruiqiang ZHENG	PS15-5-Min HE
0945-1000	PS13-6-Han ZHANG	PS14-Discussion	PS15-6-Zhaoyuan YU
1000-1020	Tea/Coffee Break		
<b>Time</b>	<b>Xiamen Grand Ballroom I+II</b>		
1020-1045	Keynote-09: Eric CHASSIGNET		
1045-1110	Keynote-10: Yoichi ISHIKAWA		
1200-1400	Lunch Break		
<b>Time</b>	<b>Xiamen Grand Ballroom I+II</b>		
1400-1530	<b>Panel Discussion 2/2: Reflection and Outlook of DITTO Summit 2023</b> <i>Moderator: Yuntao WANG</i>		
1530-1600	<b>Closing Ceremony</b> <i>Moderator: Fei CHAI</i>		
<b>Abbreviations</b>			
PS01: Ocean Modeling of Physical Processes PS02: DTO Applications for Estuary and Coastal Processes <i>(Co-organized with SKLEC/ECNU)</i> PS03: Ocean Observation of Physical Processes PS04: Ocean Modeling of Coupled Systems PS05: Remote Sensing and Applications PS06: DTO Applications for Nearshore and Coastal Systems PS07: Ocean Observations of Biochemistry and Ecosystems PS08: DTO Architectures and Interoperability 1 PS09: DTO Applications for Regional Systems PS10: DTO and Data Lakes 1 PS11: DTO Architectures and Interoperability 2 PS12: DTO Applications for Biogeochemistry and Ecosystems <i>(Co-organized with SKLMP/City University of Hong Kong)</i> PS13: DTO and Data Lakes 2 PS14: Education, Training & Capacity Development PS15: Big Data and Applications			

# ORAL PRESENTATION AGENDA OF DITTO SUMMIT 2023

**DAY 1: November 10 (Friday)**

**PS-01: Ocean Modeling of Physical Processes**  
**Co-Chairs: Jianping GAN and Chanhyung JEON**

**Time:** 1400-1545

**Venue:** Xiamen Grand Ballroom I+II

Time	Title	Presenter	Affiliation
1400-1415	Characterizing the Variability of the Circulation in the Indonesian Seas	Huijie XUE	Xiamen University
1415-1430	High-Resolution, Sub-mesoscale-Capable Global Ocean and Sea Ice Model Development – Progress and Prospects	Shiming XU	Tsinghua University
1430-1445	Efficient Dynamical Downscaling of Ocean Models Using Continuous Data Assimilation Algorithm	Peng ZHAN	Southern University of Science and Technology
1445-1500	Physically Downscaling the Global Oceanic Impact to Regional Simulations through a Novel Open Boundary Condition	ZhiQiang LIU	Southern University of Science and Technology
1500-1515	Wave Effects on Coastal Upwelling over Variable Shelves: Insight into Stokes Drift Forces and Pressure Modulation	Shangfei LIN	Hong Kong University of Science and Technology
1515-1530	Modeling Two-Way Ice-Wave Interactions in the Great Lakes Using Fvcom_Ice+Wave Model	Jia WANG	GLERL/NOAA
1530-1545	Promotion of the High Salinity Shelf Water Formation in the Ross Sea by the Future Trend of the Amundsen Sea Low	Zhaoru ZHANG	Shanghai Jiao Tong University

**PS-02: DTO Applications for Estuary and Coastal Processes  
(Co-organised with SKLEC/ECNU)**

***Co-Chairs: Zhong PENG and Chunhua JIANG***

**Time:** 1400-1545

**Venue:** Conference Room 2

<b>No.</b>	<b>Title</b>	<b>Presenter</b>	<b>Affiliation</b>
1400-1415	Advances of Coastal Ocean Physical and Biogeochemical Modeling	Jianzhong GE	East China Normal University
1415-1430	The Construction Patterns of Data Management Framework for Digital Twin system in Coastal Region	Pei DU	Nanjing Normal University
1430-1445	Application of Deep-Learning Neural Network Model in Tide Correction and Surge Prediction on Estuarine and Coastal Waters	Zhuo ZHANG	Nanjing Normal University
1445-1500	Development and Application of Digital Twin Platform for Preventing Storm Surge Composite Disaster	Jian ZENG	Zhejiang Institute of Hydraulics and Estuary
1500-1515	“What-ifs” of Coastal Flooding and Erosion for a Future Regional DTO	Joaquín TINTORE	Balearic Islands Coastal Ocean Observing and Forecasting System, Spain
1515-1530	Towards a Better Understanding on Multiple Processes in the Changjiang River Estuary and Its Vicinity through Numerical Modelling and Perhaps, Digital Twins	Hui WU	East China Normal University
1530-1545	Seasonal Diversity of El Niño-Induced Marine Heatwave Increases in the Bay of Bengal	Yun QIU	The Third Institute of Oceanography, MNR, China

**PS-03: Ocean Observation of Physical Processes****Co-Chairs: Yan DU and Lin WANG****Time: 1400-1545****Venue: Conference Room 3**

<b>No.</b>	<b>Title</b>	<b>Presenter</b>	<b>Affiliation</b>
1400-1415	An Ocean Observing System in Support for the Digital Twin of the Ocean	Toste TANHUA	GEOMAR
1415-1430	The Tropical Pacific Observing System underlies Ocean Information Products	William KESSLER	Pacific Marine Environmental Laboratory / NOAA
1430-1445	China's Activities in Ocean Observations in the Kuroshio Extension Region	Zhaohui CHEN	Ocean University of China
1445-1500	Scientific Observing Network of the Chinese Academy of Sciences in the Western Pacific Ocean	Jianing WANG	Institute of Oceanology Chinese Academy of Sciences
1500-1515	Exploring the Meso-To Sub-mesoscale Dynamics Using the South China Sea Mooring Array	Zhiwei ZHANG	Ocean University of China
1515-1530	Internal Tide Mapping in the Northwestern Pacific by Multisource Heterogeneous Data Integration	Zhenhua XU	Institute of Oceanology Chinese Academy of Sciences
1530-1545	Observation-Based Estimates of Heat and Freshwater Exchanges from the Subtropical North Atlantic to the Arctic	Feili LI	Xiamen University



**PS-04: Ocean Modeling of Coupled Systems**  
**Co-Chairs: Zhao JING and Jae-Hyoung PARK**

**Time:** 1605-1750

**Venue:** Xiamen Grand Ballroom I+II

No.	Title	Presenter	Affiliation
1605-1620	New Generation Ocean Model is the Solid Base of Digital Ocean	Shizhu WANG	The First Institute of Oceanography, MNR, China
1620-1635	EDITO-Model Lab: The Next Generation of Numerical Models for the European Digital Twin Ocean	Yann DRILLET	Mercator Ocean International
1635-1650	Prediction on Spatial Distribution of Chlorophyll-a in Coastal Seas Using a Synthetic Method of Remote Sensing, Machine Learning and Numerical Modelling	Dehai SONG	Ocean University of China
1650-1705	Assessment of Intraseasonal Variabilities in Ocean Reanalysis Products	Lei ZHOU	Shanghai Jiao Tong University
1705-1720	Simulation of East Asian Summer Monsoon Associated with Land-Air-Sea Interaction	Anmin DUAN	Xiamen University
1720-1735	Evaluating Western North Pacific Tropical Cyclone Forecast in the Subseasonal to Seasonal Prediction Project Database	Xiaochun WANG	Nanjing University of Information Science and Technology
1735-1750	Operational Sea Ice Forecasts for the Polar Regions in the NMEFC	Xi Liang	National Marine Environmental Forecasting Center

**PS-05: Remote Sensing and Applications****Co-Chairs: Yan BAI and Lian FENG****Time: 1605-1750****Venue: Conference Room 2**

No.	Title	Presenter	Affiliation
1605-1620	Big Data, Small Satellites and Deep Ocean Remote Sensing in Climate Change Studies	Xiaohai YAN	University of Delaware
1620-1635	Enhancing AMOC Understanding through Ocean Bottom Pressure Estimates from Satellite Gravimetry Missions	Le LIU	University of Bonn
1635-1650	Which Satellite Ocean Color Products Be Better Used in Coupled Biology-Physics Ocean Circulation Models: <i>Chl</i> or IOPs?	Zhongping LEE	Xiamen University
1650-1705	Satellite-Based Estimation of Carbon Fluxes in China Sea and a Marine Satellite Data Online Analysis Platform (SatCO2)	Yan BAI	The Second Institute of Oceanography, MNR, China
1705-1720	Global Mapping of Coastal Phytoplankton Blooms	Lian FENG	Southern University of Science and Technology, China
1720-1735	Remote Estimation of Photo-Inactive Property from Satellite: Sea Surface Nitrate	Shuangling CHEN	The Second Institute of Oceanography, MNR, China

**PS-06: DTO Applications for Nearshore and Coastal Systems**  
**Co-Chairs: Deanesh RAMSEWAK and Wenfang LU**

**Time:** 1605-1750

**Venue:** Conference Room 3

No.	Title	Presenter	Affiliation
1605-1620	Towards Establishment of Digital Twin in the GBA Ocean	Jianping GAN	Hong Kong University of Science and Technology
1620-1635	Guangdong-Hong Kong-Macao Greater Bay Area Ocean Digital Twin Application System	Chuyong LIN	Southern Marine Science and Engineering Guangdong Laboratory (Zhuhai)
1635-1650	A Real-Time Ecological Environment Prediction System for the Guangdong-Hong Kong-Macao Greater Bay Area: Model Setup, Application, and Online Visualization	Yang FENG	South China Sea Institute of Oceanology
1650-1705	Model Framework of Marine Physics-Biogeochemistry Coupling Process in the Guangdong-Hongkong-Macao Greater Bay Area	Xueming ZHU	Southern Marine Science and Engineering Guangdong Laboratory (Zhuhai)
1705-1720	Revealing Benthic Habitats and Sessile Epibenthic Biodiversity in Victoria Harbour – A Preliminary Study	Lai CHAN	City University of Hong Kong
1720-1735	Nutrient Budget and Biogeochemical Dynamics in Sansha Bay, China: A Coastal Bay Affected by Intensive Mariculture	Aiqin HAN	The Third Institute of Oceanography, MNR, China
1735-1750	Multi-Dimensional and Multi-Level Complex Network Model for Expressing Game Relationships Among Stakeholders in Coastal Zones	Wen LUO	Nanjing Normal University

## DAY 2: November 11 (Saturday)

### PS-07: Ocean Observations of Biochemistry and Ecosystems

*Co-Chairs: Mei ZHENG and Zhiqiang LIU*

**Time:** 0830-1000

**Venue:** Xiamen Grand Ballroom I+II

No.	Title	Presenter	Affiliation
0830-0845	Strengthened Ocean-Desert Processes in the North Pacific Over the Past Two Decades	Huiwang GAO	Ocean University of China
0845-0900	A New Method for Quantifying Sources and Solubility of Iron in Marine Aerosol Based on Field Observation in the Northwestern Pacific	Mei ZHENG	Peking University
0900-0915	Biological Carbon Pump in South China Sea by Multiple Observation Approaches	Bangqin HUANG	Xiamen University
0915-0930	Mangrove Blue Carbon Budget in Regional Scale Based on Field Observation Systems: Case in Zhangjiang Mangrove Long-Term Station	Luzhen CHEN	Xiamen University
0930-0945	Societally Relevant Predictions and Projections of Ocean and Coastal Change through the Ocean Acidification Research for Sustainability (OARS) UN Decade Program	Richard BELLERBY	Norwegian Institute for Water Research

**PS-08: DTO Architectures and Interoperability 1**  
**Co-Chairs: Pier Luigi BUTTIGIEG and Han ZHANG**

**Time:** 0830-1000

**Venue:** Conference Room 2

No.	Title	Presenter	Affiliation
0830-0845	The EMODnet Data Portal and Digital Twins: Are We Ready to Meet the Data As a Service Needs of the Digital Twins Developers and Our Traditional Users?	Conor DELANEY	EMODnet Secretariat
0845-0900	Blue-Cloud 2026: Empowering Ocean Research through Data Integration	Marina TONANI	Mercator Ocean International
0900-0915	EDITO-INFRA: An Open and Interoperable Platform to Gather Contributions for the Creation of a European DTO	Alain ARNAUD	Mercator Ocean International
0915-0930	Towards a Regional Digital Twin for the Western Mediterranean Sea	Joaquín TINTORE	Balearic Islands Coastal Ocean Observing and Forecasting System, Spain
0930-0945	Piloting the Concept of an Information Management Framework for Environmental Digital Twins (IMFe) and Connecting the Results to the UN Decade DITTO Programme	Justin BUCK	National Oceanography Centre, UK
0945-1000	Towards a Global Digital Transformation of Marine Knowledge Management and Use in Support of Sustainable Ocean Management and Blue Growth	Jan-Bart CALEWAERT	IOC-UNESCO

**PS-09: DTO Applications for Regional Systems**  
**Co-Chairs: Sung Yong KIM and Enhui LIAO**

**Time:** 0830-1000

**Venue:** Conference Room 3

No.	Title	Presenter	Affiliation
0830-0845	Improving Ocean Governance with the South African Oceans and Coastal Information System	Marjolaine KRUG	Department of Forestry, Fisheries and the Environment of South Africa
0845-0900	South Africa's Operational Ocean Forecasting Developments	Giles FEARON	South African Environmental Observation Network
0900-0915	Abstract for Introducing KDOI (Korea Digital Twin Ocean Initiatives)	Sang Keon LEE	Korea Research Institute for Human Settlements
0915-0930	Coastal Observing and Modeling Campaign in the Java Sea Indonesia: toward an Initiative Program of Digital Twin of the Ocean in the Java Sea (DITTO-JS) for Sustainable Management of Marine Resources and Activities	Agus ATMADIPOERA	IPB University
0930-0945	Reef-scale Hydrodynamic Modeling for Coral Reef Digital Twins	Weifeng ZHANG	Woods Hole Oceanographic Institution
0945-1000	The Strategies Preventing Particle Transportation into the Inlets of Nuclear Power Plants: Mechanisms of Physical Oceanography	Yuwu JIANG	Xiamen University

**PS-10: DTO and Data Lakes 1****Co-Chairs: Jan-Bart CALEWAERT and Wupeng XIAO****Time: 1400-1545****Venue: Xiamen Grand Ballroom I+II**

<b>No.</b>	<b>Title</b>	<b>Presenter</b>	<b>Affiliation</b>
1400-1415	Mechanisms to Support Semantic Interoperability across Components of Digital Twin	Piotr ZABOROWSKI	Open Geospatial Consortium
1415-1430	EDITO-INFRA: An Open Platform to Federate Digital Twin of the Ocean Initiatives	Alain ARNAUD	Mercator Ocean International
1430-1445	Building a Data Lake for the Application of Digital Twins of the Ocean	Qi LI	Southern Marine Laboratory
1445-1500	Marine Cloud: Data, Models and Digital Twins	Nengwang CHEN	Xiamen University
1500-1515	The International Quality-controlled Ocean Database (IQuOD): Adding Value to Existing Ocean Observations	Lijing CHENG	Institute of Atmospheric Physics, Chinese Academy of Sciences
1515-1530	From the Biogeochemical-Argo Program to Gridded Four-Dimensional Data Products	Xiaogang XING	The Second Institute of Oceanography, MNR, China
1530-1545	Marine Organic Carbon Atlas: What Does It Take to Make One?	Artur Piotr PALACZ	Institute of Oceanology Polish Academy of Sciences

**PS-11: DTO Architectures and Interoperability 2**  
**Co-Chairs: Zhaoyuan YU and Shangfei LIN**

**Time:** 1400-1545

**Venue:** Conference Room 2

No.	Title	Presenter	Affiliation
1400-1415	Interoperable Digital Twins of the Ocean – Architecture and Examples from Iliad	Arne BERRE	SINTEF
1415-1430	Coastal Information Model: A Comprehensive Architecture for Coastal Digital Twin Integration of Data, Models and Knowledge	Zhaoyuan YU	Nanjing Normal University
1430-1445	Integrating MPI and Spark with Kafka for Real-time Processing of High-Resolution Geoscience Datasets	Shenghui ZHOU	Laoshan Laboratory
1445-1500	An Integrated Representation Modeling for Ocean Statics and Dynamics within Twin Framework	Cunjin XUE	Aerospace Information Research Institute, Chinese Academy of Sciences
1500-1515	A Digital Twin for Estuarine and Coastal Systems	Zhong PENG	East China Normal University
1515-1530	Interoperability architectures for Digital Twins of the Ocean - an introduction to WG5 and TURTLE	Justin BUCK	National Oceanography Centre, UK



**PS-12: DTO Applications for Biogeochemistry and Ecosystems  
(Co-organized with SKLMP/City University of Hong Kong)  
Co-Chairs: Yang FENG and Baolan WU**

**Time:** 1400-1545

**Venue:** Conference Room 3

No.	Title	Presenter	Affiliation
1400-1415	Challenges for Developing Digital Twins for Marine-based Carbon Dioxide Removal	Mark WELLS	University of Maine
1415-1430	Modeling Ocean Iron Fertilization Experiments in the Pacific Ocean	Peng XIU	Xiamen University
1430-1445	Global-Scale Carbon to Nitrogen Ratio Diagnosed Using a Biogeochemical Inverse Model	Weilei WANG	Xiamen University
1445-1500	Observational Record since 1960s Reveals Expanding Global Oxygen Minimum Zones due to Human-Induced Climate Warming	Yuntao ZHOU	Shanghai Jiao Tong University
1500-1515	Unveiling Dissolved Inorganic Carbon Dynamics in the South China Sea through Digital Twins and Visualization	Quan LI	Shanghai Tech University
1515-1530	Assessing Impacts of Coastal Warming, Acidification, and Deoxygenation on Pacific Oyster ( <i>Crassostrea Gigas</i> ) Farming: A Case Study in the Hinase Area, Okayama Prefecture and Shizugawa Bay, Miyagi Prefecture, Japan	Masahiko FUJII	The University of Tokyo
1530-1545	Data Analytics Engines for Fishery and Marine Biodiversity Research Using Ocean Reanalysis and Future Projection Dataset in the Sea Region around Japan	Hiromichi IGARASHI	Japan Agency for Marine-Earth Science and Technology

## DAY 3: November 12 (Sunday)

### PS-13: DTO and Data Lakes 2

**Co-Chairs: Jon BLOWER and Shenghui LI**

**Time: 0830-1000**

**Venue: Xiamen Grand Ballroom I+II**

No.	Title	Presenter	Affiliation
0830-0845	Digital Twin of the Ocean, OneArgo as a Key Component	Yann-Hervé De ROECK	Euro-Argo ERIC
0845-0900	Toward a Data-Driven Digital Twin of the Ocean: Integrating an Adaptive Glider Observation Network and Data-Driven Techniques	Yu TIAN	Shenyang Institute of Automation, Chinese Academy of Sciences
0900-0915	Data Driven Digital Twin System for High-Speed Cross-domain Vehicle	Hongyuan LI	Peking University
0915-0930	An Acoustical Apparatus for the Quantification of Knowledge Required by Ecosystem-Based Management	Wen-Miin TIAN	National Sun Yet-sen University
0930-0945	Reconstruction of Surface Velocities from High-Resolution Sea Surface Height Using Convolution Neural Network with Decomposed Data	Qiang DENG	Xiamen University
0945-1000	Deep Learning Approach for Forecasting Sea Surface Temperature Response to Tropical Cyclones in the Western North Pacific	Han ZHANG	The Second Institute of Oceanography, MNR, China

**PS-14: Education, Training & Capacity Development**  
***Co-Chairs: Yuntao WANG and Khanittha Uthaipan***

**Time:** 0830-1000

**Venue:** Conference Room 2

<b>No.</b>	<b>Title</b>	<b>Presenter</b>	<b>Affiliation</b>
0830-0845	Strategic Orientation and Global Communication of The UN Ocean Decade	Yuntao WANG	The Second Institute of Oceanography, MNR, China
0845-0900	An Overview of DCC-OCC and its Vision for Advancing Capacity Building in the Future	Jing SUN	Decade Collaborative Center on Ocean-Climate Nexus and Coordination Amongst Decade Implementing Partners in P.R.China (DCC-OCC)
0900-0915	Empowering the Global South: Inclusive Access to Digital Twin Ocean Technologies for Sustainable Coastal Resource Management	Isa ELEGBEDE	Lagos State University
0915-0930	Transforming Marine Spatial Planning Education in the Age of Digital Twins	Shenghui LI	Guangdong Ocean University
0930-0945	iDOLPHIN Project on Chinese White Dolphins: A Case for Crowdsourcing Conservation on Marine Biodiversity	Ruiqiang ZHENG	China Blue Sustainability Institute

**PS-15: Big Data and Applications****Co-Chairs: Toste TANHUA and Dajuan KANG****Time: 0830-1000****Venue: Conference Room 3**

<b>No.</b>	<b>Title</b>	<b>Presenter</b>	<b>Affiliation</b>
0830-0845	Digital Twin for the Marine Plastic Pollution Problem: Future Directions for Research and Development	Daisuke MATSUOKA	Japan Agency for Marine-Earth Science and Technology
0845-0900	Perspectives of Digital Twin of the Rotating Tank based on AI Technology and Laboratory Experimental Data	Changming DONG	Nanjing University of Information Science and Technology
0900-0915	Application of Digital Twin and AI Assessment Model for Intelligent Maintenance of Offshore Floating Structures	Xue JIANG	Zhejiang Ocean University
0915-0930	Utilizing Water Temperature and Ocean Current Distribution Images for Prediction of Set-Net Fish Catches	Takero YOSHIDA	Japan Agency for Marine-Earth Science and Technology
0930-0945	The Visualization of Typical Oceanic Phenomena	Min HE	Southern Marine Science and Engineering Guangdong Laboratory (Zhuhai)
0945-1000	A Scenario-based Information Integration and Interaction Framework based on Large Language Model for Ocean Digital Twin System.	Zhaoyuan YU	Nanjing Normal University

## POSTER PRESENTATION LIST OF DITTO SUMMIT 2023

No.	Title	Presenter	Affiliation
PP-1-1	Evolution and dynamics of a summertime penetrating front of the Zhe-Min coast, China	Peng Ye	Zhejiang University
PP-1-2	An observed mesoscale anticyclonic eddy modulated mixed layer depth in the northern Bay of Bengal with strong salinity-stratification in winter	Haoran Tian	Second Institute of Oceanography, MNR, China
PP-1-3	Observed oceanic response to Tropical Cyclone Amphan (2020) from a subsurface mooring in the Bay of Bengal	Yingyu Peng	Shanghai Jiao Tong University
PP-1-4	Errors of Tropical Cyclone-Induced Ocean Waves in Reanalysis Using Buoy Data	Yuan Sun	National University of Defense Technology, China
PP-1-5	Volume transport estimate and variability of the deep overflow across the saddle on the Ninety east Ridge near 10°S	Shanwu Zhang	Third Institute of Oceanography, MNR, China
PP-1-6	Digitalization of Fisheries data	Peter Busumprah	Ministry of Fisheries and Aquaculture Development
PP-1-7	A global gridded ocean salinity dataset with 0.5° horizontal resolution since 1960 for the upper 2000 m	Guancheng Li	Eco-Environmental Monitoring and Research Center, Pearl River Valley and South China Sea Ecology and Environment Administration, Ministry of Ecology and Environment

PP-1-8	A global Lagrangian eddy dataset based on satellite altimetry	Tongya Liu	Second Institute of Oceanography, MNR, China
PP-1-9	Regional Ocean Stereoscopic Observation with Synchronous Network ADCPs	Liang Rao	Institute of Acoustics, Chinese Academy of Sciences
PP-1-10	Dynamic reconstruction of coastal sea level	Hongyang Lin	Xiamen University
PP-1-11	Deep Ocean Circulation in the Subpolar North Atlantic Observed by Acoustically-tracked Floats	Sijia Zou	Xiamen University
PP-1-12	Observations of residual circulation in a macro-tidal channel in the Han River estuary (Korea)	Byung il Yoon	INHA University
PP-1-13	Impact of Typhoons on the Ecological Environment of the Pearl River Estuary	Xin Zhang	National Marine Environmental Forecasting Center, China
PP-1-14	Predicting the Terrestrial Pollution Discharge in the Pearl River Estuary	Jianmin Yu	Second Institute of Oceanography, MNR, China
PP-1-15	Production and transport of dissolved organic carbon in the South China Sea: A modeling study	Wentao Ma	Second Institute of Oceanography, MNR, China
PP-1-16	Influence of seasonal aerosol deposition on the phytoplankton in the subarctic North Pacific	Haoran Zhang	Second Institute of Oceanography, MNR, China
PP-1-17	Delayed reduction of bottom oxygen triggered by net community production observed by a profiling buoy in the Changjiang River plume	Di Wu	Zhejiang University

PP-1-18	Observation and Mechanism Analysis of the Influences of Multiscale Physical Processes on the Forming-vanishing of Hypoxia off the Changjiang Estuary	Zihao Jiang	Zhejiang University
PP-1-19	Assessing the effect of strong wind events on the transport of particulate organic carbon in the Changjiang River estuary over the last 40 years	Zhihong Wang	Shanghai Jiao Tong University
PP-1-20	Three stages in the variation of the depth of hypoxia in the California Current System 2003-2020 by satellite estimation	Yifan Zhang	Shanghai Jiao Tong University
PP-1-21	Dipole eddies characteristics and generation mechanisms in the Mozambique Channel	Ting Huang	Shanghai Jiao Tong University
PP-1-22	Distribution Patterns of Large Jellyfish and Their Effects on the Zooplankton Community in the Northern Chinese Coastal Seas during the Summer of 2021	Dongjie Guo	Institute of Oceanology, Chinese Academy of Sciences
PP-1-23	The vertical tilt of mesoscale eddies: spatiotemporal variations, physical mechanisms, and potential implications	Hong Li	Fudan University
PP-1-24	Unstructured computational modeling of an interconnected community of coral reefs: an application to the Hawaiian archipelago	Keston Smith	Woods Hole Oceanographic Institution
PP-1-25	OSF- Linking Ocean Science to Ocean Solution	Shizhu Wang	First Institute of Oceanography, MNR, China

PP-1-26	Unveiling Secrets Under the Sea Ice with Ocean Robot Array: Advancing Observation and Predictive Capabilities for Ecosystem Dynamics in the Southern Ocean's Ice-Covered Zone	Yibin Huang	Xiamen University
PP-1-27	Increasing Offshore Wind Turbines along China's coast: Observations from Deep Learning.	Qiannan Ding	East China Normal University
PP-1-28	Important contributions of water-leaving irradiance to the parametrization of ocean surface albedo	Xiaolong Yu	Xiamen University
PP-1-29	Coastal material transport inferred from Lagrangian Coherent Structures	Haowei Sun	Xiamen University
PP-1-30	Elevated estimate of global marine nitrogen fixation rate using a new database	Ya-Wei Luo	Xiamen University
PP-1-31	Seasonal Variations of Sediment Flux in the Yangtze Estuary by Using a Numerical Model and GOCI Data	Guohu Xie	Zhejiang University
PP-1-32	Mechanisms of extremely weakened CO <sub>2</sub> uptake in the tropical Indian Ocean during 2015	Enhui Liao	Shanghai Jiao Tong University
PP-1-33	Multi-factor governed synoptical winter bloom in the oligotrophic marginal sea	Mengdi Xu	Xiamen University
PP-1-34	Changing Humboldt squid abundance and distribution at different life stages of oceanic eddies	Xiaoci Wu	Shanghai Ocean University
PP-1-35	Eddy footprints on abundance and habitat distribution of a large predatory squid off Peru	Pengchao Jin	Shanghai Ocean University



PP-1-36	Climate related habitat variations of Humboldt squid in the eastern equatorial waters	Jian Wen	Shanghai Ocean University
PP-2-1	An Assessment of Marine Heatwaves in a Global Eddy-Resolving Ocean Forecast System: A Case Study around China	Yiwen Li	Institute of Atmospheric Physics
PP-2-2	Simulation and projection of the relationship between the North Pacific midlatitude oceanic frontal intensity and the wintertime storm track based on the CMIP6 model	Yao Yao	Nanjing University
PP-2-3	Analysis of the 3-D spatial structure and temporal evolution characteristics of marine heatwaves in the western North Pacific	Qiang Xu	Xiamen University
PP-2-4	Estimating winds by improving HF Radar and ERA5 reanalysis wind in typhoon storm surge simulation	Yanshuang Xie	Xiamen University
PP-2-5	The operational prediction system for the growth-decline and drift of green tides in the Yellow Sea	Jingjing Zheng	National Marine Environmental Forecasting Center, China
PP-2-6	Fast inundation simulation model during storm surge in Macau based on GPU-accelerated and LTS-based shallow water model	He Ma	Zhejiang University
PP-2-7	Deep learning-based fishing ground prediction with multiple environmental factors	Mingyang Xie	Shanghai Ocean University
PP-2-8	Learning Digital Representation of Plankton: The Key to Their Automatic Recognition for Ocean Observation	Jianping Li	Shenzhen Institute of Advance Technology, CAS

PP-2-9	Predict water quality parameters and monitor red tide occurrence through deep learning	Mingchao Liu	Ocean University of China
PP-2-10	Deep Learning Improves Reconstruction of Ocean Vertical Velocity	Ruichen Zhu	Ocean University of China
PP-2-11	Selecting Key Time Steps from Temporal Coastal Metocean Data with Neural Network Encoding	Juntong Chen	East China Normal University
PP-2-12	A Multi-mode Neural Network for the Long-term Ocean Wave Hindcast in the Coastal Region	Jiawen Liao	South China Sea Institute of Oceanology, Chinese Academy of Sciences
PP-2-13	Data Assimilation based on Imitation Learning for Observational and Simulated Data	Maqun Zhang	Ocean University of China
PP-2-14	SST Fusion Data and Its Application in the Operational Sea Temperature Forecast	Yang Liu	National Marine Environmental Forecasting Center, MNR, China
PP-2-15	Remote Sensing Estimation of Organic Carbon Storage in Bare Intertidal Flat Based on SVM Machine Learning Model	Dong Zhang	Nanjing Normal University
PP-2-16	Remote Sensing of Global Sea Surface pH Based on Massive Underway Data and Machine Learning	Zhiting Jiang	Shanghai Jiao Tong University
PP-2-17	Improving Estimates of Global Oceanic Dimethylsulfide (DMS) and their Climate Radiative Effects by the Machine Learning Method and GEOS-Chem-TOMAS	Yan Zhang	Fudan University

PP-2-18	Multi-attention residual network for super-resolution of Arctic Sea ice concentration image	Wankun Chen	Ocean University of China
PP-2-19	Directly Retrieving Water Quality Parameters from Top-of-Atmosphere HiSea-II Measurements	Hanyang Qiao	Xiamen University
PP-2-20	Phytoplankton Size Class determination using remote sensing	Md Shahin Hossain Shuva	University of Chittagong
PP-2-21	Fusion Method for Water Depth Data from Multiple Sources Based on Image Recognition	Huiyu Han	Shanghai Jiao Tong University
PP-2-22	Impact of Atmospheric Transmittance and NLTE Correction on Simulation of High Spectral Infrared Atmospheric Sounder Onboard FY-3E	Peiming Dong	Donghai Laboratory
PP-2-23	Dynamic feature extraction of the Northwest Pacific subarctic front	Jiarui Lian	National University of Defense Technology, China
PP-2-24	Parameterizing Submesoscale Vertical Buoyancy Flux by Simultaneously Considering Baroclinic Instability and Strain-Induced Frontogenesis	Jinchao Zhang	Ocean University of China
PP-2-25	Advection schemes in an unstructured grid sea ice ocean couple model	Qian Wang	Shanghai Jiao Tong University
PP-2-26	Modeling coastal oxygen depletion and its application in prediction and mitigation of marine ecological hazards	Qicheng Meng	Second Institute of Oceanography, MNR, China

PP-2-27	An intercomparison of remote sensing approaches for bathymetry, water's optical properties and benthic types of optically shallow waters based on a co-registered database	Siyuan Hou	Xiamen University
PP-2-28	Spatial reconstruction of long-term (2003-2020) sea surface pCO <sub>2</sub> in the South China Sea using a machine learning based regression method aided by empirical orthogonal function analysis	Zhixuan Wang	Xiamen University
PP-2-29	Mesoscale and sub-mesoscale processes modulate the mixed layer depth and chlorophyll distribution in the Kuroshio-Oyashio Extension	Yang Ding	Ocean University of China
PP-2-30	Satellite estimates of net community production based on O <sub>2</sub> /Ar observations in the northern Gulf of Mexico	Zelun Wu	Xiamen University
PP-3-1	Ocean ventilation controls the contrasting anthropogenic CO <sub>2</sub> uptake rates between the western and eastern South Atlantic Ocean basins	Hui Gao	Guangdong Ocean University
PP-4-1	Cloud-Edge Collaborative Ocean Sensing Data Transmission Architecture for DITTOs	Yanglong Sun	Jimei University
PP-5-1	Application concept of digital twins in intelligent design and management of navigation beacons	Kejing Liu	Jimei University
PP-6-1	Strengthen ocean health via international collaboration to achieve sustainable development goal	Yue Jiang	Second Institute of Oceanography, MNR, China

PP-7-1	Application of machine learning tools for coral reef and mangrove habitat mapping in Trinidad and Tobago	Deanesh Ramsewak	The University of Trinidad and Tobago, Chaguaramas Campus
PP-7-2	Digital Reefs – Combining intuitive, interactive visuals with actionable management data in a coral reef digital twin	Nathaniel Mollica	Woods Hole Oceanographic Institution
PP-7-3	The Application of digital twin technology in estimation of size structure of large yellow croaker ( <i>Larimichthys crocea</i> )	Hongquan Li	Xiamen University
PP-7-4	The Application of Digital Twin Technology in the Study of Dolphin Biosonar	Weijie Fu	Xiamen University
PP-7-5	Regional projection of climate warming effects on coastal seas in east China	Wenxia Zhang	Second Institute of Oceanography, MNR, China
PP-7-6	Climate model uncertainty in regional sea level projections	Kewei Lyu	Xiamen University
PP-7-7	The Weakened Upwelling at the Upstream Kuroshio in the East China Sea Induced Extensive Sea Surface Warming	Yi Wei	Second Institute of Oceanography, MNR, China
PP-7-8	Combined oceanic and atmospheric forcing of the 2013/14 marine heatwave in the northeast Pacific	Huanhuan Chen	Zhejiang university
PP-7-9	Biological data review of seamounts in the northwest Pacific	Dongsheng Zhang	Second Institute of Oceanography, MNR, China
PP-7-10	Seasonal and decadal variability of the carbon sink in the North Pacific	Xianghui Guo	Xiamen University

PP-7-11	Contrasting responses of two diazotroph communities to warming, Fe and P addition in the tropical Western Pacific	Yuanyuan Feng	Shanghai Jiao Tong University
PP-7-12	Study on the controlling effect of coastal benthic ecosystems on jellyfish population dynamic under global change	Wenxiao Zang	Institute of Oceanology, Chinese Academy of Sciences
PP-7-13	The spatial distribution and environmental effects of micronekton in the southwestern Indian Ocean based on acoustic data	Shujie Wan	Shanghai Ocean University
PP-7-14	Study on early warning of storm surge overrunning and inundation risk in the Xiamen Bay	Wen-Zhou Zhang	Xiamen University
PP-7-15	Numerical Simulation of the Coast Inundation around Guangdong-Hongkong-Macao Greater Bay Area	Danya Xu	Southern Marine Science and Engineering Guangdong Laboratory (Zhuhai)
PP-7-16	Integration of Ocean Environment Monitoring and Early Warning System for Enhancing Nuclear Power Plant Cooling System Reliability	Qiang Li	Tsinghua Shenzhen International Graduate School
PP-7-17	Understanding and Mitigating the Impact of Tropical Cyclones	Xueling You	Shanghai Jiao Tong University
PP-7-18	2023 International nutrient inter-comparison voyage and preliminary result in China	Lifang Wang	Xiamen University
PP-7-19	Three-Dimensional Climatological Structures of the Arabian Sea Eddies and Eddy-Induced Flux	Xinyu Lin	Third Institute of Oceanography, MNR, China

PP-7-20	Phytoplankton community response to episodic wet and dry aerosol deposition in the subtropical North Atlantic	Zhongwei Yuan	GEOMAR Helmholtz Centre for Ocean Research Kiel
PP-7-21	An energetic mesoscale anticyclonic eddy in the southern Bay of Bengal in June 2020: A case study	Ruijie Ye	Second Institute of Oceanography, MNR, China
PP-7-22	Characteristics and mechanisms of the intraseasonal variability of Sea Surface Salinity in the Southeastern Arabian Sea during 2015 - 2020	Teng Hui	Third Institute of Oceanography, MNR, China
PP-7-23	Dynamical response of the Arabian Sea oxygen minimum zone to the extreme Indian Ocean Dipole	Zhiwei Zhang	Shanghai Jiao Tong University
PP-7-24	New Insights of Internal Solitary Waves on the Northern Shelf of the South China Sea	Xiaolin Bai	Xiamen University
PP-7-25	Marine plastic pollution	Suryakanta Acharya	PAY-W Clinic
PP-7-26	Mixed and barrier layers in the Arctic Ocean: Model-data comparison	Ru Chen	Tianjin University
PP-7-27	Role of surface rainfall to the extreme sea level variability along the Cox's Bazar coast of Bangladesh	Islam Md Anowarul	Shahjalal University of Science and Technology
PP-7-28	The effects of climate variability on long-term changes in the Humboldt Current Ecosystem	Zhiping Feng	Shanghai Ocean University
PP-7-29	Long-term variability of the large marine ecosystems in Southwest Atlantic and its responses to climatic regime shifts	Hewei Liu	Shanghai Ocean University

# LOCAL INFORMATION

Dear DITTO Summit 2023 Attendees,

Thank you for your efforts to make it to attend International Digital Twins of the Ocean Summit 2023 (DITTO Summit 2023)!

To facilitate your travel to the venue, stay in Xiamen/China, and participation in the Summit, we provide this local information for your reference. Hope you find it useful and helpful.

Shall you have any questions about DITTO Summit 2023, please contact us via email.

**Dr. Samuel WANG**  
Coordination

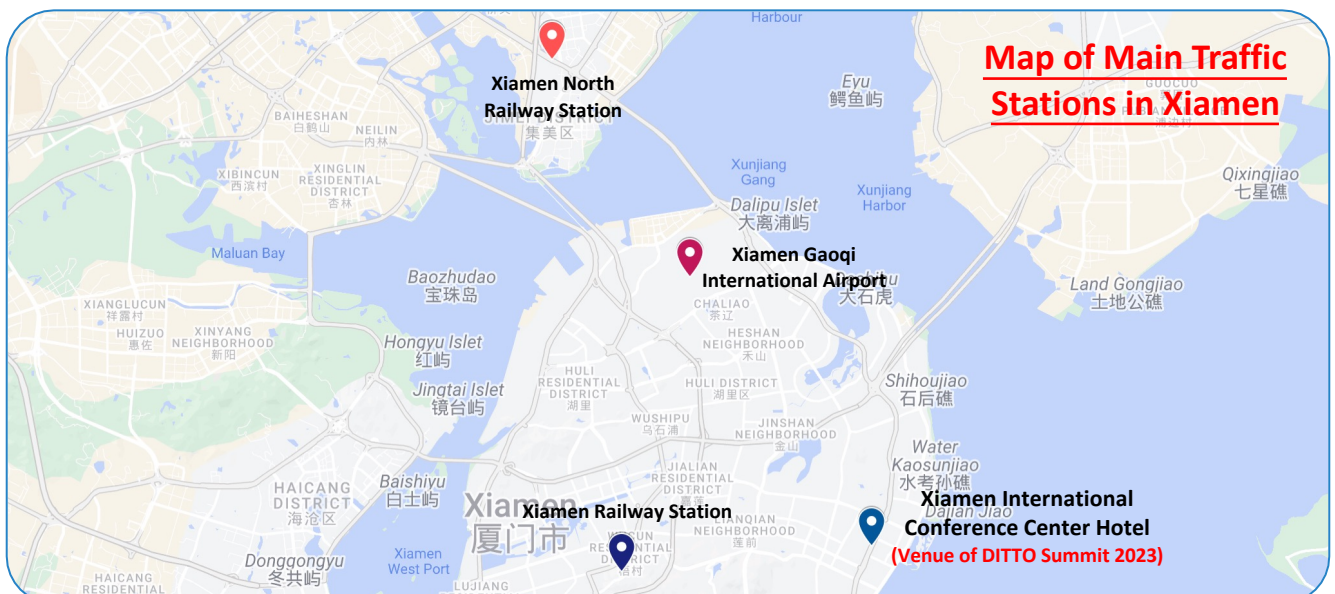
**Ms. Xiaoyi WANG**  
Academic Programme

**Ms. Jingrui ZHANG**  
Project Manager

**Official E-mail: [DITTOsummit2023@chinastargroup.com](mailto:DITTOsummit2023@chinastargroup.com)**

## How to get to Xiamen International Conference Center Hotel?

If this is your first time to visit Xiamen or even China, we strongly recommend you to take a taxi to the venue. Please note that e-payment (WeChat Pay or Alipay) is now popular and widely used in China. Cash payment is also accepted, but there might be no changes. Credit card will not be accepted for the taxi payment. Thus, you are advised to get some RMB cash with you for the taxi. Furthermore, **you are also suggested to print out or keep an image of next slide for your communication with the taxi driver**, so as to avoid any inconvenience caused by language barriers.





## 出租车搭乘卡

司机师傅您好，请您送我到**厦门国际会议中心酒店**，谢谢！

地址：中国福建省厦门市思明区环岛东路1697号

### TAXI NOTE

Please take me to **Xiamen International Conference Center Hotel**, many thanks!

Address: No.1697, The East Island Ring Road, Siming District, Xiamen, China



厦门国际会议中心酒店  
Xiamen International  
Conference Center Hotel

## From the Airport to the Hotel

### From Xiamen Gaoqi International Airport (about 12 km)

**By Taxi:** about 30 minutes drive. The total cost is about 40 CNY/5.5 USD.

**By Other Public Transportation:** Bus No. 641/Bus No. 949/ Bus D2. It will take about 1 hour to get to the venue and the ticket based on the Bus you select.

## From the Railway Station to the Hotel

### From Xiamen Railway Station

**By Taxi:** about 20 minutes drive. The total cost is about 25 CNY/3.5USD.

#### **By Public Transportation:**

- a) BRT Bus No. 3 → transfer to Bus No.58 at Guomaoxincheng Station → get off at Minnandaxiyuan Station → walking 200 metres, arrive at Xiamen International Conference Center Hotel
- b) Subway Line 3 → get off at Hubindonglu Station → walking about 160 metres, arrive at Huguanglukou Bus Station, take Bus. No. 58 → get off at Minnandaxiyuan Station → walking 200 metres, arrive at Xiamen International Conference Center Hotel

### From Xiamen North Railway Station

**By Taxi:** about 35 minutes drive. The total cost is about 80 CNY/11 USD.

#### **By Public Transportation:**

Subway Line 1 → transfer to Subway Line 2 at Lvco Station → get off at Lingdou Station → walking about 190 mteres, take Bus M7 at Mingfayuan Station → get off at Minnandaxiyuan Station → walking about 60 metres, arrive at Xiamen International Conference Center Hotel

## Other Tips for Transportation

- a) You may change money at the Banks or Money Exchange at the airport beforehand since you need Chinese money (RMB) to pay for the means of transportation.
- b) Kindly note that all the time is subject to traffic conditions.

## Travel Tips in Xiamen, China

### Climate

Originally known as Amoy, Xiamen is an island renowned for her rich cultural relics, pleasant climate, beautiful natural scenery, and long history of international commerce. It is located on the southeast coast of China and has a monsoonal humid subtropical climate characterised by mild and dry winters with **an average November temperature from 18°C to 25°C (64°F to 77°F)**.

### Electricity

The electric current used in China is **220V/50Hz**. Hotels provide 220V and 110V (shavers only) power outlets. Please note that **plug adapters and converters might be required**.

### Time

China covers four time zones. **Beijing time is the only official time throughout the country**. Punctuality is highly appreciated.

### Non-smoking

**Smoking in indoor public places has been banned in Xiamen** from September 24, 1996. The regulation extends smoking bans to include all indoor public areas and workplaces, plus a number of outdoor areas including schools, seating areas in sports stadiums and hospitals where women or children are treated.

### Currency and Exchange

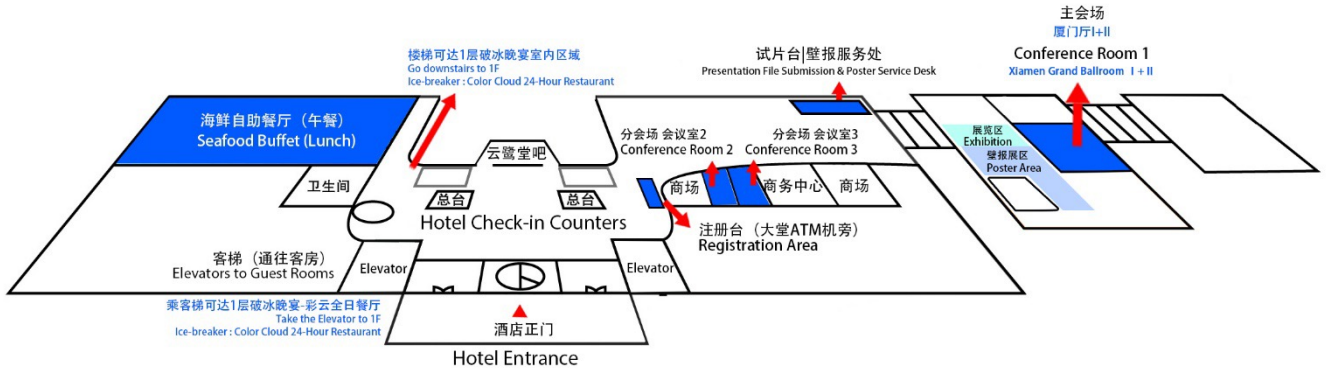
The currency used in China is the Renminbi Yuan (RMB or ¥) and current exchange rate is USD: RMB = 1:7.33 (November, 2023). The Yuan is divided into 10 Jiao or 100 Fen. Notes come in denominations of ¥ 100, 50, 20, 10, 5 and 1. Euros and US Dollars can be exchanged at local bank. Traveler's cheques can only be exchanged at the Bank of China.

Banks usually open from 9 a.m. to 5 p.m., from Monday to Friday and 9 a.m. to 4 p.m. on Saturday and Sunday. Currency exchange services are available for the following foreign currencies: US Dollar, British Pound Sterling, Euro, Japanese Yen, Australian Dollar, Canadian Dollar, Hong Kong Dollar, Swiss Franc, Danish Krone, Norwegian Krone, Swedish Krone, Singapore Dollar, Malaysian Ringgit, and Macao Pataca.

Major credit cards are accepted at many stores, such as Master Card and Visa.

## DITTO Summit 2023 General Information

### ➤ Floor Plan of the Venue



### ➤ Registration & Hotel Check-in

The registration desk is located in the Main Lobby, 2F. You could find it at your right hand when you enter the hotel from the main entrance, which is set up in front of an ATM machine. Participants could sign in or make on-site registration here. If you have any questions about the Summit, travel in Xiamen or need any assistance, you are more than welcome to visit us at the registration desk.

Participants who booked the hotel rooms at Xiamen International Conference Center Hotel could check in at the Check-in Counters.

#### Registration Service Time:

November 9	November 10	November 11	November 12
9:00-22:00	8:00-18:00	8:00-18:00	8:00-12:00

#### Lanes for Registration (from left to right):

Tour & Information		Cashier	On-site Registration	Pre-registration	Pre-registration	Pre-registration
1	2	3	4	5	6	7

Participants who have completed all the registration steps including the payment could line up at the **“Pre-registration”** lane. If you just created your account, but have NOT paid yet, please make your on-site registration or complete your payment at the **“On-site Registration”** or **“Cashier”** counter. Participants could ask and book the Xiamen one-day tour at the **“Tour & Information”** counter.

#### Chinese Fapiao, Receipt or Invoice:

All the Chinese Fapiao will be sent to participants in 2 weeks after the Summit. For International participants, the receipt could be downloaded from your personal centre. If you need an invoice, please leave your information at the Information desk.

## ➤ E-programme and Plantable Seed Paper PASS

For a better environment and reducing carbon footprint, the Summit will adopt a web-based and interactive e-programme so that registered participants can get access to the agenda easily with their electronic devices. Participants will be able to log in to the e-Programme by scanning a QR code on the PASS. Thus, there will be NO printed brochures.

Furthermore, the PASS of the Summit is made of plantable seed papers. You could keep it after the Summit and plant it as a taken-away souvenir from the Summit.

[Click here](#) to view the brief programme and detailed oral presentation agenda, as well as poster presentation list.

## ➤ PPT slide testing & Poster session preparation

The Presentation File Submission and Poster Service Desk is located in the corridor to Xiamen Grand Ballroom I+II. Kindly note that since speakers are NOT allowed to use their own laptops for presentations, all presentations must be submitted to the Presentation File Submission Desk upon arrival at the hotel or at least **ONE DAY BEFORE** pre-scheduled arrangements.

### Presentation File Submission & Poster Service Desk Hours

November 9	November 10	November 11	November 12
14:30-22:00	8:00-18:00	8:00-18:00	8:00-12:00

The poster boards will be set up in the foyer of the Xiamen Grand Ballroom. Presenters are responsible for presenting their posters before the Summit. The special glue for poster posting will be offered on-site to protect the board as well as the poster. Presenters can seek help from on-site staff or volunteers in terms of locating a specific posting board or obtaining the tools needed, etc. To ensure a well-prepared poster session, posters must be up during the preparation period. All presenters should stay by the corresponding poster throughout the poster session.

### Time Table for Posters:

Time for putting up	Before 17:30 on November 10, 2023
Poster Session	16:00-18:00 on November 11, 2023
Time for takedown	After 14:00 on November 12, 2023

(Kindly note that the Summit will NOT collect the posters that are NOT taken down after 14:00 on November 12, 2023.)

For detailed information about Oral and poster presentation guidelines please check the official webpage. [Click here](#) for more information.

## ➤ Social Events and Dining

The Summit offers buffet lunches for invited guests and registered participants during Nov. 10-12. The Ice-breaking Reception and Gala Dinner are also included. Participants who would like to join these social events could get these invitation tickets when signing in at the registration desk.

### Dining Schedule:

Ice-breaking Reception	18:00 on November 9, 2023
Meeting Lunches	12:00-14:00 for November 10-12, 2023
Gala Dinner	18:30 on November 11, 2023
Tea & Coffee Breaks	As scheduled

**Thank you for your reading.**

**We are looking forward to hosting all of you in Xiamen for the Summit!**

**Yours sincerely,  
DITTO Summit 2023 Organising Committee**

**[Click here to explore more on the official website of DITTO Summit 2023](#)**

