

# *The 2nd HKB Annual Meeting* **International Conference on Marine Ecosystem and Resources**



**14-15 January 2022**

**Time:** 9:00 am – 6:00 pm (GMT +8, HKT)

**Venue:** Via Zoom Meeting Platform

**Co-organizer:** Hong Kong Academy of Marine Science  
and Engineering

**Registration** 5:00 pm (GMT +8, HKT)

**Deadline:** 12 January 2022



*Welcome for  
Registration*

*General Inquiry: [hkb@ust.hk](mailto:hkb@ust.hk)*



## Hong Kong Branch 2nd Annual Meeting

### International Conference on Marine Ecosystem and Resources

### Rundown

**Date:** 14-15 January 2022

**Time:** 9:00 am – 6:00 pm (GMT +8, HK Time)

**Venue:** Via Zoom Meeting Platform

**Co-organizer:** Hong Kong Academy of Marine Science and Engineering

Day 1 Schedule (14 January 2022, GMT +8, HK Time)		
<b>Morning Session</b> <b>Session Chair: Prof. Pei-Yuan Qian</b> <b>MC: Dr. Ting Xu</b> <b>Zoom link:</b> <a href="https://hkust.zoom.us/meeting/register/tJ0oce6pqzItEtOVKQxbR-zoXBc_QKLMp7SI">https://hkust.zoom.us/meeting/register/tJ0oce6pqzItEtOVKQxbR-zoXBc_QKLMp7SI</a>		
9:05-9:10 am	Opening Remarks	<b>Prof. Pei-Yuan Qian</b> David von Hanseemann Professor of Science; Head and Chair Professor, Department of Ocean Science, Hong Kong University of Science and Technology; Director, Hong Kong Branch of the Southern Marine Science and Engineering Guangdong Laboratory (Guangzhou)
9:10-9:40 am	Plenary Talk	<b>Prof. Si Zhang</b> Director, Southern Marine Science and Engineering Guangdong Laboratory (Guangzhou)
9:40-10:00 am	Director's Report	<b>Prof. Pei-Yuan Qian</b> David von Hanseemann Professor of Science; Head and Chair Professor, Department of Ocean Science, Hong Kong University of Science and Technology; Director, Hong Kong Branch of the Southern Marine Science and Engineering Guangdong Laboratory (Guangzhou)
10:00-10:30 am	Group Photo & Break	
10:30-11:00 am	Plenary Talk	Title: Effect of warming on marine microbial food webs <b>Prof. Hongbin Liu</b> Associate Head and Chair Professor, Department of Ocean Science; Professor, Division of Life Science, Hong Kong University of Science and Technology
11:00-11:30 am	Plenary Talk	Title: From Organisms to Single Cells: Seeing Metals in Action in the Real Waters <b>Prof. Wen-Xiong Wang</b> Chair Professor, School of Energy and Environment, City University of Hong Kong

11:30 am-12:00 pm	Plenary Talk	Title: Complex interactions among a deep-sea mussel and its endo- and episymbionts <b>Prof. Jianwen Qiu</b> Professor, Department of Biology, Hong Kong Baptist University
12:00-1:00 pm	Lunch break	
<b>Afternoon Parallel Sessions</b>		
1:00 pm onwards	Area 3 and Area 4	

<b>Day 1 Schedule</b> <b>(14 January 2022, GMT +8, HK Time)</b>	
<b>Afternoon Parallel Sessions</b> <b>Invited Talks for Cold seep biodiversity, functioning, and genomics</b> <b>Session Chairs: Prof. Jianwen Qiu &amp; Prof. Jinping Cheng</b> <b>Zoom link:</b> <a href="https://hkust.zoom.us/meeting/register/tJMsdU2prTouGtGm6HoGzKBdA_L11I9RNLAZ">https://hkust.zoom.us/meeting/register/tJMsdU2prTouGtGm6HoGzKBdA_L11I9RNLAZ</a>	
1:00-1:20 pm	Task Leader Briefing Prof. Jianwen Qiu (Area 3 Task Leader)
1:20-1:40 pm	Title: Modscaf: a package to scaffold the ONT contigs with DNA modification information Prof. Runsheng Li
1:40-2:00 pm	Title: Impact of mutations in CRISPR Cas9 Prof. Haibin Su
2:00-2:20 pm	Title: An insight into the microstructures and composition of deep-sea limpet shells Dr. Zhehan Ying (PI: Prof. Ning Wang)
2:20-2:40 pm	Title: Biodiversity, Symbiosis and Genomics of Deep-Sea Chemosynthetic Ecosystems Dr. Yi Lan (PI: Prof. Pei-Yuan Qian)
2:40-3:00 pm	Title: Evolution of decapod-microbe symbiosis Prof. Ling Ming Tsang
3:00-3:15 pm	Break
3:15-3:35 pm	Title: Evolution of novel adaptations in deep sea methane seeps Prof. Julia Sigwart
3:35-3:55 pm	Title: Decoding the largest crustacean genome – a deep-sea shrimp <i>Alvinocaris longirostris</i> Prof. Jerome Ho Lam Hui
3:55-4:15 pm	Title: Deciphering high resolution microbiome using combination of 2nd and 3rd generation sequencing approaches Prof. Sheng Chen
4:15-4:35 pm	Title: Progress on co-estimating an evolutionary timeline of deep-sea animals and their symbionts based on mitochondrial endosymbiosis Dr. Sishuo Wang (PI: Prof. Haiwei Luo)
4:35 pm onwards	Area 3 Group Discussion



## Day 1 Schedule (14 January 2022, GMT +8, HK Time)

### Afternoon Parallel Sessions

### Invited Talks for New technology for mining biological and microbiological resources in the South China Sea

**Session Chairs: Prof. Philip Yongxin Li & Dr. Rong Ni**

#### Zoom link:

[https://hkust.zoom.us/meeting/register/tJwIcGpQtkoHNTcTJgcIaf\\_o1t-crhcY3O-](https://hkust.zoom.us/j/9123456789)

1:00-1:20 pm	Title: Omics-guided and synthetic biology-enabled discovery of bioactive natural products from marine microbes Prof. Philip Yongxin Li (Area 4 Task Leader)
1:20-1:40 pm	Title: Genome mining and biosynthesis of bioactive marine natural products Prof. Bradley Moore
1:40-2:00 pm	Title: New diterpenoid discovery via precursor labeling and biotransformation Nick Zill (PI: Prof. Wenjun Zhang)
2:00-2:20 pm	Title: Total Synthesis of Maltepolide E and Congeners from Myxobacteria Prof. Wei-Min Dai
2:20-2:40 pm	Title: Lasso peptide biosynthesis: a structural approach Prof. Zhihong Guo
2:40-3:00 pm	Title: Novel inhibitors and activators of TRPV1 channel from marine natural products Prof. Pingbo Huang
3:00-3:15 pm	Break
3:15-3:35 pm	Title: Identification of marine bacterial-derived compounds with neurite growth-promoting activities Mr. Leung Ting Chan (PI: Prof. Kai Liu)
3:35-3:55 pm	Title: Collective total syntheses of bioactive marine natural product lepadins Prof. Rongbiao Tong
3:55-4:15 pm	Title: Microcrystals and MicroED for Marine Natural Products Prof. Ian D. Williams
4:15-4:35 pm	Title: NMR-based Screening of Marine Natural Products to Target G-quadruplexes for Anti-ALS and Anti-AIDS Drug Discovery Prof. Guang Zhu
4:35-4:55 pm	Title: Multi-omics guided Natural Products Discovery from Marine Microorganisms Dr. Jianwei Tang (PI: Prof. Pei-Yuan Qian)
4:55-5:15 pm	Title: A waste upcycling loop: Two-factor adaptive evolution of microalgae to increase polyunsaturated fatty acid production using food waste Mr. Zubeen Hathi (PI: Prof. Carol Sze Ki Lin)
5:15 pm onwards	Area 4 Group Discussion

## Day 2 Schedule (15 January 2022, GMT +8, HK Time)

### Parallel Sessions

### Invited Talks for Response mechanism of ecosystem and life processes to environmental changes in the South China Sea (including the Greater Bay Area)

**Session Chairs: Prof. Hongbin Liu & Dr. Rong Ni**

#### Zoom link:

<https://hkust.zoom.us/j/9123456789>

9:00-9:20 am	Task Leader Briefing Prof. Hongbin Liu (Area 1 Task Leader)
9:20-9:40 am	Title: Plankton growth and grazing along an oligotrophic temperature gradient in the eastern Indian Ocean Prof. Michael Landry (Video)
9:40-10:00 am	Title: The impact of phage infection on the host's circadian rhythm and cell cycle Ms. Yaxin Liu (PI: Prof. Qinglu Zeng)
10:00-10:20 am	Title: Adaptation of cyanophages to phosphate limitation by regulating activity of phosphate-specific transporter of cyanobacteria host Prof. Shangyu Dang
10:20-10:40 am	Title: Characterization of Extracellular Vesicles Released from <i>Prochlorococcus</i> MED4 Ms. Ziqing Peng (PI: Prof. Yusong Guo)
10:40-10:55 am	Break
10:55-11:15 am	Title: Collecting Biological Health Data of Local Cetaceans in Hong Kong Waters: Unmanned Aerial Vehicle Technology and Digital Photography (Phase 2) Prof. Brian Chin Wing Kot
11:15-11:35 am	Title: Full-depth scalings for Isopycnal eddy mixing across continental slopes Mr. Huaiyu Wei (PI: Prof. Yan Wang)
11:35-11:55 am	Title: A high-quality genome assembly of the Japanese eel. Prof. Chris Kong Chu Wong
11:55 am-12:15 pm	Title: Single-cell analysis of a Deep-Sea Chemosymbiotic Clam Prof. Angela Ruohao Wu
12:15-1:25 pm	Lunch break
1:25-1:45 pm	Title: Environmental drivers of coral reef health across oceanic gradients Dr. Christina Skinner (Video) (PI: Prof. Alex S.J. Wyatt)
1:45-2:05 pm	Title: Explore marine viral diversity and reveal potential virus-host interactions in subtropical waters Prof. Charmaine Cheuk Man Yung
2:05-2:25 pm	Title: Environmental DNA metabarcoding for marine environmental monitoring



10:00-10:20 am	Title: In situ DGT sensing of bioavailable metal fluxes to improve toxicity predictions for sediments Dr. Minwei Xie (PI: Dr. Stuart Simpson)
10:20-10:40 am	Title: Emerging per- and polyfluoroalkyl substances (PFASs) in marine organisms: Pollution trend, non-target screening, and toxicokinetics Dr. Yuefei Phoebe Ruan (PI: Prof. Paul Kwan Sing Lam)
10:40-10:55 am	Break
10:55-11:15 am	Title: Anthropogenic impacts on coastal antibiotic resistomes and their implications for seafood safety Prof. Xiang-dong Li
11:15-11:35 am	Title: Electrochemical Immunosensing for Marine Analytes Large and Small Mr. Stuart Robertson (PI: Prof. Minhua Shao)
11:35-11:55 am	Title: Electrochemical Immunosensing for Marine Analytes Large and Small Mr. Stuart Robertson (PI: Prof. Minhua Shao)
11:55 am-12:15 pm	Title: Quantifying impact of dispersion and transport of passive and active tracers Prof. Julian Mak
12:15-1:25 pm	Lunch break
1:25-1:45 pm	Title: Development of a suite of novel in vitro assays for screening of epigenetic modifiers Dr. Cherry C.T. Leung (PI: Prof. Rudolf Shiu Sun Wu)
1:45-2:05 pm	Title: Bathymetric suppression on turbulent volume transfer across buoyant shelf circulations Mr. Huaiyu Wei (PI: Prof. Yan Wang)
2:05-2:25 pm	Title: Stable isotope analyses for coral reef impact assessments Dr. Christina Skinner (Video) (PI: Prof. Alex S.J. Wyatt)
2:25-2:45 pm	Title: A Covid-19 Side Effect: Massive Release of Microplastics from Discarded Surgical Masks Potentially Polluting Marine Environment Prof. Henry Yuhe He
2:45-3:05 pm	Title: Advancing Bioanalytical Approaches to Understanding Health Impacts of Chemical Mixtures in Marine Wildlife Prof. Ling Jin
3:05-3:20 pm	Break
3:20-3:40 pm	Title: Studying wild fish bacterial pathogens in Eastern Mediterranean fish by applying next generation sequencing on gill tissue Peleg Itai (PI: Dr. Danny Morick)
3:40-4:00 pm	Title: Emerging contaminant concentrations, sediment interaction and risk management in the Pearl River Estuary and Southampton Water Jana Appelt (PI: Prof. Andy Cundy)
4:00 pm onwards	Area 2 Group Discussion