# TENTATIVE PROGRAMME

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Schedule</th>
<th>Venue</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th December</td>
<td>15:00-22:00</td>
<td>Registration</td>
<td>Haiji Hotel &amp; Nanyang Hotel</td>
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<tr>
<td></td>
<td>(Ice breaker: 17:00-19:00)</td>
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<tr>
<td>10th December</td>
<td>8:30-9:00</td>
<td>Opening ceremony</td>
<td>Hailan hall, Haiji Hotel</td>
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<tr>
<td></td>
<td>9:00-9:40</td>
<td>Plenary speech</td>
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<td></td>
<td>9:40-10:10</td>
<td>Group photograph &amp; Tea break</td>
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<tr>
<td></td>
<td>10:10-11:50</td>
<td>Plenary speeches</td>
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<td></td>
<td>12:00-13:30</td>
<td>Lunch</td>
<td>School canteen</td>
</tr>
<tr>
<td>13:30-18:00</td>
<td>(Tea Break: 15:25-15:45)</td>
<td>P1 Wave, tidal and wind energy</td>
<td>203, Teaching Building</td>
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<tr>
<td></td>
<td></td>
<td>P2 Coastal and ocean structures, breakwaters, and revetments</td>
<td>224, Teaching Building</td>
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<tr>
<td></td>
<td></td>
<td>P3 Coastal hydrodynamics and coastal processes</td>
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<td></td>
<td></td>
<td>S2 Marine aquaculture engineering</td>
<td>209, Teaching Building</td>
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<tr>
<td></td>
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<td>S3 Evolution and modeling of the Yellow River Estuary</td>
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<td>S4 Coastal Hazards and Integrated Management Options</td>
<td>226, Teaching Building</td>
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<td></td>
<td></td>
<td>S5 Marine geotechnics</td>
<td>201, Teaching Building</td>
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<tr>
<td>18:00-20:00</td>
<td></td>
<td>Banquet</td>
<td>Haiji Hotel</td>
</tr>
<tr>
<td>11th December</td>
<td>9:00-12:00</td>
<td>P2 Coastal and ocean structures, breakwaters, and revetments</td>
<td>224, Teaching Building</td>
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<tr>
<td></td>
<td>(Tea Break: 10:10-10:30)</td>
<td>P4 Estuary and coastal environment and eco-hydraulics</td>
<td>203, Teaching Building</td>
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<td>S1 Coastal reservoirs for SDG6</td>
<td>209, Teaching Building</td>
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<tr>
<td></td>
<td></td>
<td>S2 Marine aquaculture engineering</td>
<td>202, Teaching Building</td>
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<td>S4 Coastal hazards and integrated management options</td>
<td>226, Teaching Building</td>
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<td>S5 Marine geotechnics</td>
<td>201, Teaching Building</td>
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<tr>
<td>Time</td>
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<tr>
<td>12:00-13:30</td>
<td>Lunch</td>
<td>School canteen</td>
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<tr>
<td>13:30-17:30</td>
<td>Technical tour</td>
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<tr>
<td>17:30-19:30</td>
<td>Dinner</td>
<td>School canteen</td>
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<tr>
<td>8:30-12:05</td>
<td>P3 Coastal hydrodynamics and coastal processes</td>
<td>224, Teaching Building</td>
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<td></td>
<td>P5 Laboratory techniques and measurement systems</td>
<td>201, Teaching Building</td>
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<td>P6 Field measurement, floating bodies, wave generation and analysis</td>
<td>209, Teaching Building</td>
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<tr>
<td></td>
<td>P7 Sediment transport, erosion, and sedimentation</td>
<td>203, Teaching Building</td>
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<tr>
<td>12:00-13:30</td>
<td>Lunch</td>
<td>School canteen</td>
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<tr>
<td>14:20-16:20</td>
<td>Plenary speeches</td>
<td>Hailan hall, Haiji Hotel</td>
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<tr>
<td>16:20-</td>
<td>Closing ceremony</td>
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12th December

8:30-12:05 (Tea Break: 10:10-10:30)
## Opening ceremony & Plenary speeches

### Thursday, 10th December (Haiji Hotel)

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>8:30-9:00</td>
<td>Opening ceremony:</td>
<td>LOC Chair: Pengzhi Lin</td>
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<tr>
<td></td>
<td></td>
<td>Prof. Joseph H.W. Lee, The president of IAHR</td>
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<td>Ruifei Wang, Zhejiang University</td>
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<tr>
<td>9:00-9:40</td>
<td>Plenary speech: Foundation behavior of offshore wind</td>
<td>Lizhong Wang (Zhejiang University)</td>
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<tr>
<td>On-site</td>
<td>turbine</td>
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<tr>
<td>9:40-10:10</td>
<td>Group photograph &amp; Tea break</td>
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<tr>
<td></td>
<td><strong>Chair: Dezhi Ning</strong></td>
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<tr>
<td>10:10-10:50</td>
<td>Plenary speech:</td>
<td>Philip L.-F. Liu (National University of Singapore)</td>
</tr>
<tr>
<td>Online</td>
<td>Swash flows generated by bores with variable length</td>
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<tr>
<td>10:50-11:30</td>
<td>Plenary speech:</td>
<td>James T. Kirby (University of Delaware)</td>
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<tr>
<td>Online</td>
<td>Surface wave breaking in the laboratory and field:</td>
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<td></td>
<td>A review of the history and recent progress in predicting its onset and strength</td>
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<tr>
<td>11:30-12:10</td>
<td>Plenary speech:</td>
<td>Liang Cheng (The University of Western Australia)</td>
</tr>
<tr>
<td>Online</td>
<td>An extended Stokes solution for turbulent wave boundary layers</td>
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<tr>
<td>12:10-13:30</td>
<td>Lunch</td>
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<tr>
<td>Time</td>
<td>Event</td>
<td>Speaker</td>
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<tr>
<td>13:30-13:55</td>
<td>On-site keynote: Orientation of the wave and tidal energies, from basic research to commercial application</td>
<td>Hongda Shi (Ocean University of China)</td>
</tr>
<tr>
<td>13:55-14:10</td>
<td>On-site: Mechanical metamaterials piezoelectric nanogenerator (MM-PENG)</td>
<td>Pengcheng Jiao (Zhejiang University)</td>
</tr>
<tr>
<td>14:10-14:25</td>
<td>On-site: Experimental study of the hydrodynamic effects of tidal turbines in staggered array</td>
<td>Yaling Chen (Lanzhou University)</td>
</tr>
<tr>
<td>14:25-14:40</td>
<td>On-site: Synthetic mooring ropes for renewable energy applications</td>
<td>Yushun Lian (Hohai University)</td>
</tr>
<tr>
<td>14:40-14:55</td>
<td>On-site: Analysis on the power fluctuation of tidal stream turbine in the turbulence flow combined with regular waves</td>
<td>Yuquan Zhang (Hohai University)</td>
</tr>
<tr>
<td>14:55-15:10</td>
<td>On-site: An effective framework for wake predictions of tidal-current turbines</td>
<td>Chen Long (Changsha University of Science &amp; Technology)</td>
</tr>
<tr>
<td>15:10-15:25</td>
<td>Online: Development of coupling program and dynamic response of articulated offshore wind turbine</td>
<td>Pei Zhang (Tianjin University)</td>
</tr>
<tr>
<td>15:25-15:45</td>
<td>Tea break</td>
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<tr>
<td>15:45-16:10</td>
<td>Online keynote: A bottom-sitting wave energy converter: characteristics of local flow field and scour</td>
<td>Zhenhua Huang (University of Hawaii at Manoa)</td>
</tr>
<tr>
<td>16:10-16:25</td>
<td>On-site: Hydrodynamic performance of WECs embedded in a breakwater</td>
<td>Yang Zhang (Harbin Engineering University)</td>
</tr>
<tr>
<td>16:25-16:40</td>
<td>On-site: Wave energy focusing due to three-dimensional Bragg resonance with undulating bottom of V-shaped layout</td>
<td>Haiming Zhang (Hohai University)</td>
</tr>
<tr>
<td>16:40-16:55</td>
<td>On-site: Energy Properties for Higher-order Stokes Waves over Horizontal Bottom</td>
<td>Xiang Gao (Dalian University of Technology)</td>
</tr>
<tr>
<td>16:55-17:10</td>
<td>On-site: Numerical simulation of an offshore single-chamber heave-only oscillating water column device</td>
<td>Pinjie Wang (Zhejiang University)</td>
</tr>
<tr>
<td>17:10-17:25</td>
<td>Online: Experimental development of a hybrid wave energy converter for rubble mound breakwaters</td>
<td>Paulo Rosa Santos (Faculty of Engineering of the University of Porto)</td>
</tr>
<tr>
<td>17:25-17:40</td>
<td>On-site: Design and Optimization of a Hybrid System of Wave Energy converters and Floating Breakwaters</td>
<td>Binzhen Zhou (South China University of Technology)</td>
</tr>
<tr>
<td>18:00-19:30</td>
<td>Banquet</td>
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</table>
## P2 Coastal and ocean structures, breakwaters, and revetments

**Thursday, 10\textsuperscript{th} December (224, Teaching Building)**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
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</thead>
</table>
| 13:30-13:55 | Towards development of entirely Lagrangian meshfree computational methods for hydroelastic fluid-structure interactions in coastal engineering  
Online keynote | Abbas Khayyer (Kyoto University)                                                                      |
| 13:55-14:10 | Study on hydrodynamics of ecologically vegetated honeycomb-type revetment under waves  
On-site | Jinfeng Zhang (Tianjin University)                                                                    |
| 14:10-14:25 | Hydrodynamic behavior of net cage in the open sea  
On-site | TiaoJian Xu (Dalian University of Technology)                                                          |
| 14:25-14:40 | Experiment on vortex-induced vibration response of submarine flexible pipeline near seabed  
On-site | Hongjun Zhu (Southwest Petroleum University)                                                            |
| 14:40-14:55 | Study on interaction between wave and dense-row pile breakwater  
On-site | Yifeng Zhang (Tianjin Research Institute for Water Transport Engineering)                              |
| 14:55-15:10 | Experimental study on local scour around a subsea porous cubic caisson in steady current  
On-site | Fan Yang (Dalian University of Technology)                                                             |
| 15:10-15:25 | Tests on reversed open filters on sand-covered rock mounds  
Online | Bas Hofland (Delft University of Technology)                                                           |
| 15:25-15:45 | Tea break                                                                                           |                                                  |
# P3 Coastal hydrodynamics and coastal processes

**Thursday, 10th December (224, Teaching Building)**

**Chair:**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker and Affiliation</th>
</tr>
</thead>
</table>
| 15:45-16:10| On-site keynote                                                         | Some Advances in Modeling Tropical-Cyclone Induced Coastal Disasters  
Xiping Yu (Tsinghua University) |
| 16:10-16:35| Online keynote                                                          | Necessity of using a wave friction factor in tsunami numerical simulation  
Hitoshi Tanaka (Tohoku University) |
| 16:35-17:00| Online keynote                                                          | Research Development of China Numerical Tank  
Wenyang Duan (Harbin Engineering University) |
| 17:00-17:15| On-site                                                                | How precise can we conduct the laboratory experiments?  
Haijiang Liu (Zhejiang University) |
| 17:15-17:30| On-site                                                                | Evolution of Infragravity Waves Over a Shoal Under Nonbreaking Conditions  
Ye Liu (Tianjin University) |
| 17:30-17:45| On-site                                                                | Study on wave attenuation in following and opposing currents due to rigid vegetation  
Chuyan Zhao (Dalian University of Technology) |
| 17:45 -18:00| On-site                                                                | Discussion of instability analysis for triad resonance among free surface waves, ambient currents and rippled bottoms  
Jun Fan (Hohai University) |
| 18:00-19:30|                                                         | Banquet                                        |
## S2 Marine aquaculture engineering

**Thursday, 10th December (220, Teaching Building)**

**Chair: Fukun Gui**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:30-14:00</td>
<td>Migration of aquaculture facility system to offshore</td>
<td>Jun Yan (Zhan jiang wan Laboratory)</td>
<td></td>
</tr>
<tr>
<td>14:00-14:20</td>
<td>Aquaculture facility and intelligent associated equipment</td>
<td>Fuxiang Liu (CIMC Marine Fishery Co., Ltd.)</td>
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</tr>
<tr>
<td>14:20-14:40</td>
<td>Design and application of distributed-type net cage</td>
<td>Zhenlin Liang (Shandong University)</td>
<td></td>
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<tr>
<td>14:40-15:00</td>
<td>Design and application of offshore aquaculture ship</td>
<td>Zhixin Chen (Fishery machinery and Instrument Research Institute)</td>
<td></td>
</tr>
<tr>
<td>15:00-15:20</td>
<td>Design and application of offshore aquaculture facility</td>
<td>Yongfei Peng (Aqualis Offshore Marine Services (Shanghai))</td>
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<tr>
<td>15:20-15:40</td>
<td>Tea break</td>
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<tr>
<td>15:40-16:10</td>
<td>Fluid-structure interactions of cage based aquaculture: from structures to organisms</td>
<td>Yunpeng Zhao (Dalian University of Technology)</td>
<td></td>
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<tr>
<td>16:10-16:30</td>
<td>Numerical study on scattering waves around a porous horizontal elliptic plate using reef3d</td>
<td>Fenfang Zhao (China Ocean University)</td>
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<tr>
<td>16:30-16:50</td>
<td>Effects of hydroid-fouling on the hydrodynamics of the fish cage netting</td>
<td>Chunwei Bi (Dalian University of Technology)</td>
<td></td>
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<tr>
<td>16:50-17:10</td>
<td>Effect of design configuration on structural response of longline aquaculture in waves</td>
<td>Dejun Feng (National Engineering Research Center for Marine Aquaculture)</td>
<td></td>
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<tr>
<td>17:10-17:30</td>
<td>Dynamics of fish cages with elastic net in current and waves</td>
<td>Gianluca Zitti (Università politecnica delle marche)</td>
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<tr>
<td>17:30-17:50</td>
<td>Large-scale laboratory experiments on mussel dropper lines</td>
<td>Rebekka Gieschen (Leichtweiß-Institute for Hydraulic Engineering and Water Resources)</td>
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<tr>
<td>18:00-19:30</td>
<td>Banquet</td>
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# S3 Evolution and modeling of the Yellow River Estuary

**Thursday, 10th December (209, Teaching Building)**

**Chair: Shunqi Pan, Yuanfeng Zhang**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:30-13:55</td>
<td><strong>On-site keynote</strong> Study on the Morphological Processes Leading to Estuarine Channel Avulsion</td>
<td>Wanzhan Wang (Yellow River Institute of Hydraulic Research)</td>
</tr>
<tr>
<td>13:55-14:10</td>
<td>Sediment Transport During Regulation Season of Water and Sediment in the Lower Yellow River</td>
<td>Yuanfeng Zhang (Yellow River Institute of Hydraulic Research)</td>
</tr>
<tr>
<td>14:10-14:25</td>
<td>Geomorphological Response of the Yellow River (Huanghe) Mouth to the Changes in its Boundary Conditions</td>
<td>Naishuang Bi (Ocean University of China)</td>
</tr>
<tr>
<td>14:25-14:40</td>
<td>Evolution of Coast Erosion and the Formed Land Area of the Yellow River Estuary</td>
<td>Shoubing Yu (Yellow River Institute of Hydraulic Research)</td>
</tr>
<tr>
<td>14:40-14:55</td>
<td>Simulating the Morphological Evolution of Deltaic Lobes in the Yellow River Estuary</td>
<td>Lehong Zhu (Zhejiang University)</td>
</tr>
<tr>
<td>14:55-15:10</td>
<td>The Yellow River Delta in Transition: Insights from Long-term Morphological Evolution</td>
<td>Yutao Fu (East China Normal University)</td>
</tr>
<tr>
<td>15:10-15:25</td>
<td>Extensions of the Yellow River plume under the impact of reservoir operation in Spring</td>
<td>Yaoshen Fan (Yellow River Institute of Hydraulic Research)</td>
</tr>
<tr>
<td>15:25-15:45</td>
<td><strong>Tea break</strong></td>
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**Chair: Shunqi Pan, Yuanfeng Zhang**

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<th>Time</th>
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<tbody>
<tr>
<td>15:45-16:10</td>
<td><strong>Online keynote</strong> Evolution of the Yellow River Delta under Changing Environment - from Numerical Modelling Perspectives</td>
<td>Shunqi Pan (Cardiff University)</td>
</tr>
<tr>
<td>16:10-16:25</td>
<td>Hydrodynamics and Sedimentary Processes of a Turbid Estuary under the Changing Environment</td>
<td>Hongyu Ji (East China Normal University)</td>
</tr>
<tr>
<td>16:25-16:40</td>
<td>Historical changes of tidal and sediment dynamics due to coastline changes in Hangzhou Bay since Tang Dynasty</td>
<td>Yueying Zha (Zhejiang University)</td>
</tr>
<tr>
<td>16:40-16:55</td>
<td>Application of 3D laser scanning technology in the physical model of the Yellow River Estuary</td>
<td>Xiang Zhao (China Institute of Water Resources and Hydropower Research)</td>
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<tr>
<td>18:00-19:30</td>
<td><strong>Banquet</strong></td>
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# S4 Coastal hazards and integrated management options

**Thursday, 10th December (226, Teaching Building)**

**Chair: Zaijin You, Peter Nielsen**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker/Institution</th>
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</thead>
<tbody>
<tr>
<td>13:30-13:55</td>
<td><strong>Online keynote</strong></td>
<td><strong>Flood over China in summer of 2020: A Perspective from Three Oceans</strong></td>
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<td></td>
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<td>Chunzai Wang (South China Sea Institute of Oceanology)</td>
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<tr>
<td>13:55-14:10</td>
<td><strong>On-site</strong></td>
<td><strong>Wave overtopping mitigation by a porous layer on a rock slope</strong></td>
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<td>Weidong Chen (Dalian University of Technology)</td>
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<tr>
<td>14:10-14:25</td>
<td><strong>On-site</strong></td>
<td><strong>An experimental study on flow kinematic characteristics of dam-break flow</strong></td>
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<td>Ting Tan (Dalian University of Technology)</td>
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<tr>
<td>14:25-14:40</td>
<td><strong>On-site</strong></td>
<td><strong>Numerical modelling the typhoon waves and storm surges in the Bohai Sea and the North Yellow Sea</strong></td>
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<td>Mingliang Zhang (Dalian Ocean University)</td>
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<tr>
<td>14:40-14:55</td>
<td><strong>Online</strong></td>
<td><strong>The role of simplified storms in sand wave formation: a numerical modeling study</strong></td>
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<tr>
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<td>Zhenlu Wang (Ocean University of China)</td>
</tr>
<tr>
<td>14:55-15:10</td>
<td><strong>Online</strong></td>
<td><strong>Hydrogeological characterization of coastal aquifers and borefield optimization</strong></td>
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<td>Ye Ma (Dalian Maritime University)</td>
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<tr>
<td>15:10-15:25</td>
<td><strong>On-site</strong></td>
<td><strong>Performance of geotextile sandbags revetment: in-situ coastal experimental station</strong></td>
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<td>Yongqing Li (Dalian University of Technology)</td>
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<tr>
<td>15:25-15:45</td>
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<td><strong>Tea break</strong></td>
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**Chair: Chun-zai Wang,**

<table>
<thead>
<tr>
<th>Time</th>
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<th>Speaker/Institution</th>
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</thead>
<tbody>
<tr>
<td>15:45-16:10</td>
<td><strong>On-site keynote</strong></td>
<td><strong>Storm-induced coastal hazards and their impacts on the coast of China</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Zaijin You (Dalian Maritime University)</td>
</tr>
<tr>
<td>16:10-16:25</td>
<td><strong>On-site</strong></td>
<td><strong>Practice and exploration of Chinese living shorelines</strong></td>
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<tr>
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<td>Aifeng Tao (Hohai University)</td>
</tr>
<tr>
<td>16:25-16:40</td>
<td><strong>Online</strong></td>
<td><strong>Novel approaches to predicting the water levels in mega-estuaries</strong></td>
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<tr>
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<td>Min Gan (Hohai University)</td>
</tr>
<tr>
<td>16:40-16:55</td>
<td><strong>On-site</strong></td>
<td><strong>An ISPH model for simulating sediment transport and turbulence under breaking waves</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dong Wang (Dalian Maritime University)</td>
</tr>
<tr>
<td>16:55-17:10</td>
<td><strong>On-site</strong></td>
<td><strong>A computationally efficient subgrid model for coupled surface and groundwater flows</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yujie Chen (Ocean University of China)</td>
</tr>
<tr>
<td>17:10-17:25</td>
<td><strong>On-site</strong></td>
<td><strong>Observation of wave overwash on an artificial beach</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Zhubin Cao (Hohai University)</td>
</tr>
<tr>
<td>18:00-19:30</td>
<td></td>
<td><strong>Banquet</strong></td>
</tr>
</tbody>
</table>
# S5 Marine geotechnics

**Thursday, 10\textsuperscript{th} December (201, Teaching Building)**

**Chair: L.Z. Wang & B. Zhu**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
</table>
| 14:20-14:40| Porous models for fluid-seabed-structure interaction with OpenFOAM: Model validations and applications  
D.S. Jeng (Griffith University) | Online keynote |
| 14:40-15:00| Numerical modelling of cyclic horizontal loading of piles in sand and clay using hypoplasticity  
D. Masin (Charles University) | Online keynote |
| 15:00-15:20| Offshore caisson foundation in sand: from numerical modelling to macroelement design tool  
Z.Y. Yin (The Hong Kong Polytechnic University) | Online keynote |
| 15:20-15:40| Tea break | |

**Chair: F.Y. Liang & J.H. Li**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
</table>
| 15:40-16:00| Characterization of spatial and temporal distributions of wave-induced pore pressure in a non-cohesive seabed  
F.P. Gao (Institute of Mechanics, Chinese Academy of Sciences) | On-site keynote |
| 16:00-16:20| Improved prediction of spudcan penetration resistance by an observation-optimized model  
D. Wang (Ocean University of China) | On-site keynote |
| 16:20-16:40| An anisotropy state-dependent gassy sand model with its application to submarine landslide modelling  
Y. Hong (Zhejiang University) | On-site keynote |
| 16:40-17:00| Developments of cavity expansion solutions and their applications to offshore geotechnical engineering  
P.Q. Mo (Chinese University of Mining and Technology) | On-site keynote |
| 18:00-19:30| Banquet |
## P2 Coastal and ocean structures, breakwaters, and revetments

### Friday, 11\(^{th}\) December (224, Teaching Building)

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00-9:25</td>
<td>Performance analysis of perforated caisson structures under water wave action</td>
<td>Yong Liu (Ocean University of China)</td>
<td>On-site keypoint</td>
</tr>
<tr>
<td>9:40-9:55</td>
<td>Numerical simulation of chloride ion diffusion in concrete based on stochastic convex polygon coarse aggregate model</td>
<td>Zhen Liu (Tianjin University)</td>
<td>On-site</td>
</tr>
<tr>
<td>9:55-10:10</td>
<td>Stability analysis of seabed structures in macro-tidal turbid sea waters</td>
<td>Zixuan Li (Zhejiang University)</td>
<td>On-site</td>
</tr>
<tr>
<td>10:10-10:30</td>
<td>Tea break</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:30-10:55</td>
<td>A Simplified Physically-Based Model of Coastal Dike and Barrier Breaching</td>
<td>Weiming Wu (Clarkson University)</td>
<td>Online keynote</td>
</tr>
<tr>
<td>10:55-11:10</td>
<td>Numerical simulations for body hydrodynamic responses within uneven seabed conditions</td>
<td>Aichun Feng (Shanghai Jiao Tong University)</td>
<td>On-site</td>
</tr>
<tr>
<td>11:10-11:25</td>
<td>Experimental study of solitary waves propagating over a suspended plate</td>
<td>Xuyang Niu (Dalian University of Technology)</td>
<td>On-site</td>
</tr>
<tr>
<td>11:25-11:40</td>
<td>Effectiveness of dummy water levels in physical models to optimize the toe and the crest levels</td>
<td>D. P. L. Ranasinghe (Lanka Hydraulic Institute Ltd.)</td>
<td>Online</td>
</tr>
<tr>
<td>12:00-13:30</td>
<td>Lunch break</td>
<td></td>
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</tbody>
</table>
P4 Estuary and coastal environment and eco-hydraulics

Friday, 11th December (203, Teaching Building)

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00-9:25</td>
<td>On-site keynote</td>
<td>A new in-situ annular flume for measurements of the erosion threshold on intertidal flats</td>
<td>Zheng Gong (Hohai University)</td>
</tr>
<tr>
<td>9:25-9:40</td>
<td>On-site</td>
<td>Numerical study of porous material layer effects on mitigating sloshing</td>
<td>Mi-An Xue (Hohai University)</td>
</tr>
<tr>
<td>9:40-9:55</td>
<td>On-site</td>
<td>Effect of submerged and rigid artificial vegetation distributions on curved channel flow</td>
<td>Yu Yang (Zhejiang University)</td>
</tr>
<tr>
<td>9:55-10:10</td>
<td>Online</td>
<td>Integrated Coastal Zone Management: A Global Overview</td>
<td>K. Thiruvencatasamy (To be determined)</td>
</tr>
<tr>
<td>10:10-10:30</td>
<td></td>
<td>Tea break</td>
<td></td>
</tr>
<tr>
<td>10:30-10:55</td>
<td>Online keynote</td>
<td>Experimental testing of ecosystem-flow interactions</td>
<td>Ryan Lowe (The University of Western Australia)</td>
</tr>
<tr>
<td>10:55-11:20</td>
<td>Online keynote</td>
<td>Numerical detection of natural CO₂ seepage in coastal area using adjoint method</td>
<td>Toru Sato (The University of Tokyo)</td>
</tr>
<tr>
<td>11:20-11:35</td>
<td>On-site</td>
<td>Flow characteristics around the reef surf zone under the combined effects of wave and current</td>
<td>Yu Yao (Changsha University of Science and Technology)</td>
</tr>
<tr>
<td>11:35-11:50</td>
<td>Online</td>
<td>Measuring hydrodynamics in aquatic vegetation canopies: Challenges and opportunities</td>
<td>Arnold Van Rooijen (University of Western Australia)</td>
</tr>
<tr>
<td>11:50-12:05</td>
<td>Online</td>
<td>Experimental and numerical investigation of wave attenuation by flexible vegetation</td>
<td>Kai Yin (Southeast University)</td>
</tr>
<tr>
<td>12:00-13:00</td>
<td></td>
<td>Lunch break</td>
<td></td>
</tr>
</tbody>
</table>
## S1 Coastal reservoirs for SDG6

### Friday, 11th December (209, Teaching Building)

**Chair: Guangqiu Jin, Ji Chen**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter/Presenter Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00-9:25</td>
<td><strong>Online keynote</strong></td>
<td>How to design a coastal reservoir? Shuqing Yang (University of Wollongong)</td>
</tr>
<tr>
<td>9:25-9:40</td>
<td><strong>On-site</strong></td>
<td>Two-Phase Risk Hedging Rules for Informing Conservation of Flood Resources in Reservoir Operation Considering Inflow Forecast Uncertainty Bin Xu (Hohai University)</td>
</tr>
<tr>
<td>9:40-9:55</td>
<td><strong>On-site</strong></td>
<td>Simulation of dam-break flow through porous media by wc-mps mesh-free method Tibing Xu (Ningbo University)</td>
</tr>
<tr>
<td>9:55-10:10</td>
<td><strong>Online</strong></td>
<td>The Opportunities and Challenges of Coastal Reservoir Strategy for Sustainable Water Resources Devel Honnasiddaiah Ramesh (National Institute of Technology Karnataka)</td>
</tr>
<tr>
<td>10:00-10:30</td>
<td><strong>Tea break</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Chair: Shuqing Yang, Tibing Xu**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter/Presenter Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:30-10:55</td>
<td><strong>On-site keynote</strong></td>
<td>Hydrological processes in the surrounding aquifer affect the salt dynamics in the coastal reservoir Guangqiu Jin (Hohai University)</td>
</tr>
<tr>
<td>10:55-11:10</td>
<td><strong>Online</strong></td>
<td>A new perspective of acquiring water resources for coastal regions: utilization of atmospheric water resources Ji Chen (The University of Hong Kong)</td>
</tr>
<tr>
<td>11:10-11:25</td>
<td><strong>Online</strong></td>
<td>Numerical Study of Brisbane River Estuary and Moreton Bay Khalil Usman (University of Wollongong)</td>
</tr>
<tr>
<td>11:25-11:40</td>
<td><strong>On-site</strong></td>
<td>The influence of the dam/cut-off wall on seawater intrusion in coastal reservoirs Chaoqun Xu, Yuhang Tian, Jicong Xie (Hohai University)</td>
</tr>
<tr>
<td>11:40-11:55</td>
<td><strong>Online</strong></td>
<td>Hydro-environmental modelling of North Wales Tidal Lagoon using Telemac-2D Bin Guo (Cardiff University,)</td>
</tr>
<tr>
<td>11:55-12:10</td>
<td><strong>Online</strong></td>
<td>Mechanism of sediment transport beneath the tidal wave and experimental verification Muhammad Zain Bin Riaz (University of Wollongong)</td>
</tr>
<tr>
<td>12:00-13:30</td>
<td><strong>Lunch break</strong></td>
<td></td>
</tr>
</tbody>
</table>
**S2 Marine aquaculture engineering**

**Friday, 11th December (220, Teaching Building)**

**Chair: Yunpeng Zhao**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Speaker/Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00-9:30</td>
<td>On-site keynote</td>
<td>Fukun Gui (Zhejiang Ocean University)</td>
</tr>
<tr>
<td>9:30-9:50</td>
<td>Design and application of energy supply system for offshore aquaculture</td>
<td>Junhua Chen (College of Science &amp; Technology Ningbo University)</td>
</tr>
<tr>
<td>9:50-10:10</td>
<td>Construction of offshore net enclosure engineering</td>
<td>Wei Song (East China Sea Fisheries Research Institute)</td>
</tr>
<tr>
<td>10:10-10:30</td>
<td>Application of the Ultra High Molecular Weight Polyethylene Fibe (UHMWPE) for offshore aquaculture</td>
<td>Ping Wei (Shandong Laiwei New Materials Co., Ltd)</td>
</tr>
<tr>
<td>10:30-10:50</td>
<td>Property and application of PET net</td>
<td>Zhiyuan Zhang (Ningbo Hopenet Marine Technology Co., Ltd)</td>
</tr>
<tr>
<td>10:50-11:10</td>
<td>Property and application of high strong core spun PE net</td>
<td>Guoyi Le (Zhoushan Lanjing New Materials Co., Ltd)</td>
</tr>
<tr>
<td>11:10-11:30</td>
<td>Design and safety analysis of fish farm for offshore aquaculture</td>
<td>Xiaohua Huang (South China Sea Fisheries Research Institute)</td>
</tr>
<tr>
<td>12:00-13:30</td>
<td>Lunch break</td>
<td></td>
</tr>
</tbody>
</table>
### S4 Coastal hazards and integrated management options

**Friday, 11th December (226, Teaching Building)**

**Chair: Yuxiang Ma, Chi Zhang**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00-9:25</td>
<td>Sediment transport over the muddy tidal flat: The influence of bio-physical processes and human activities</td>
<td>Yaping Wang (East China Normal University)</td>
</tr>
<tr>
<td>9:25-9:40</td>
<td>Modelling long-period wave impacts onto seashore areas induced by storm surge based on hybrid numerical model</td>
<td>Ming Xiao (Ningbo University)</td>
</tr>
<tr>
<td>9:40-9:55</td>
<td>Experimental Study of Clear-Water Scour for Submerged Piles in Steady Currents</td>
<td>Shengtao Du (Ningbo University)</td>
</tr>
<tr>
<td>9:55-10:10</td>
<td>Spatial and temporal characteristics of wave energy resources in Yellow and Bohai sea based on ERA5</td>
<td>Hongyuan Shi (Ludong University)</td>
</tr>
<tr>
<td>10:10-10:30</td>
<td>Tea break</td>
<td></td>
</tr>
</tbody>
</table>

**Chair: Ling Li, Aifeng Tao**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:30-10:55</td>
<td>Beach safety accidents in Chinese mainland coasts</td>
<td>Chi Zhang (Hohai University)</td>
</tr>
<tr>
<td>10:55-11:10</td>
<td>Laboratory Investigation of Beach Profile Evolution under Slowly Varying Storm Waves</td>
<td>Jun Wang (Ocean University of China)</td>
</tr>
<tr>
<td>11:10-11:25</td>
<td>Human-induced changes on sedimentary environment in a macro-tidal estuary</td>
<td>Zhixin Cheng (Dalian Maritime University)</td>
</tr>
<tr>
<td>11:25-11:40</td>
<td>Real-time phase-resolved ocean wave forecast with data assimilation</td>
<td>Guangyao Wang (Tianjin University)</td>
</tr>
<tr>
<td>12:00-13:30</td>
<td>Lunch break</td>
<td></td>
</tr>
</tbody>
</table>
## S5 Marine geotechnics

**Friday, 11th December (201, Teaching Building)**

**Chair: F.P. Gao, D. Wang**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker and Institution</th>
</tr>
</thead>
</table>
| 9:00-9:20 | **On-site keynote** | Centrifuge modelling of lateral behaviour of tetrapod piled jacket foundations for offshore wind turbines  
B. Zhu (Zhejiang University) |
| 9:20-9:40 | **On-site keynote** | Methods for predicting and monitoring the scour depth of underwater foundations  
X.G. Chen (Ocean University of China) |
| 9:40-10:00 | **On-site keynote** | Effects of gas dissociation on mechanical behavior of a fine-grained sediments with carbonate shells  
C.F. Chiu (Shantou University) |
| 10:00-10:30 | **On-site keynote** | Tea break |

**Chair: X.G. Chen & Z. Guo**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker and Institution</th>
</tr>
</thead>
</table>
| 10:30-10:50 | **On-site keynote** | To be determined  
F.Y. Liang (Tongji University) |
| 10:50-11:10 | **On-site keynote** | Physical modelling the failure mechanism of spatially variable soils  
J.H. Li (Harbin Institute of Technology) |
| 11:10-11:30 | **On-site keynote** | The dynamic responses of offshore open-ended pile in sands  
J.W. Liu (Qingdao University of Technology) |
| 12:00-13:30 | **Lunch Break** | |
P3 Coastal hydrodynamics and coastal processes

Saturday, 12th December (224, Teaching Building)

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker and Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30-8:55</td>
<td>Online keynote: Quasi-steady dam-break wave propagation on rough, horizontal beds</td>
<td>Peter Nielsen (University of Queensland)</td>
</tr>
<tr>
<td>8:55-9:10</td>
<td>On-site: Moving particle method in simulating hydrodynamics in ocean engineering</td>
<td>Tibing Xu (Ningbo University)</td>
</tr>
<tr>
<td>9:10-9:25</td>
<td>On-site: Experimental study on the interactions between counterflowing gravity currents</td>
<td>Samuel Ukpong Okon (Zhejiang University)</td>
</tr>
<tr>
<td>9:25-9:40</td>
<td>On-site: Stepwise alterations in tidal hydrodynamics in a highly human-modified estuary: the role of channel deepening and narrowing</td>
<td>Ping Zhang (Sun Yat-sen University)</td>
</tr>
<tr>
<td>9:40-9:55</td>
<td>On-site: Impacts of channel dredging on suspended sediment and siltation in the Jiaojiang Estuary</td>
<td>Xueqian Chen (Zhejiang University)</td>
</tr>
<tr>
<td>9:55-10:00</td>
<td>On-site: Resonance of long waves around a circular island and its relation to edge waves</td>
<td>Zhengdong Yu (Tsinghua University)</td>
</tr>
<tr>
<td>10:10-10:30</td>
<td>Tea break</td>
<td></td>
</tr>
<tr>
<td>10:30-10:45</td>
<td>Online: High-fidelity simulation of solitary wave propagation and evolution</td>
<td>Yichen Huang (Shanghai Jiao Tong University)</td>
</tr>
<tr>
<td>10:45-11:00</td>
<td>On-site: Physical modeling of regular wave induced horizontal circulation over a reef-lagoon-channel system</td>
<td>Shubin Chen (Hohai University)</td>
</tr>
<tr>
<td>11:00-11:15</td>
<td>On-site: Modeling the hydrodynamics changes by the construction of Yangshan Harbor, Shanghai, China</td>
<td>Wenyun Guo (Shanghai Maritime University)</td>
</tr>
<tr>
<td>11:15-11:30</td>
<td>On-site: Water surface response within a harbor to atmospheric disturbances moving along shoreline</td>
<td>Qiuyi Sun (Tsinghua University)</td>
</tr>
<tr>
<td>11:30-11:45</td>
<td>On-site: Asymmetric tidal dynamics in the marco-tidal Hangzhou Bay, China</td>
<td>Yihan Ren (Zhejiang University)</td>
</tr>
<tr>
<td>11:45-12:00</td>
<td>On-site: Propagation and turbulence characteristics of continuous-flux release gravity currents over rough beds</td>
<td>Dongrui Han (Zhejiang University)</td>
</tr>
<tr>
<td>12:00-13:30</td>
<td>Lunch break</td>
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</tbody>
</table>
# P5 Laboratory techniques and measurement systems

**Saturday, 12th December (201, Teaching Building)**

**Chair:**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Speaker, Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30-8:55 Online keynote</td>
<td>Combined Energy Harvesting and Data Compression Approaches for Efficient Extreme Events Monitoring in Civil Infrastructure</td>
<td>Nizar Lajnef (Michigan State University)</td>
</tr>
<tr>
<td>8:55-9:10 On-site</td>
<td>The properties of Rational function Wave Spectrum (RWS) and its application to island waves in the south china sea</td>
<td>Yigeng Wang (Dalian University of Technology)</td>
</tr>
<tr>
<td>9:10-9:25 On-site</td>
<td>The contact measurement method of motion response for a constrained floating object under wave action</td>
<td>Tengxiao Wang (Ningbo Institute of Technology, Zhejiang University)</td>
</tr>
<tr>
<td>9:25-9:40 On-site</td>
<td>Coupling Simulation of Waves and Storm Surges in a Wave-Current Flume</td>
<td>Yanting Li (Nanjing Hydraulic Research Institute)</td>
</tr>
<tr>
<td>9:40-9:55 On-site</td>
<td>Experimental study on the three dimensional scour around marine pipelines</td>
<td>Titi Sui (Hohai University)</td>
</tr>
<tr>
<td>9:55-10:10 On-site</td>
<td>Research on special shape wave maker technology</td>
<td>Xin Jin (Beijing Sinfor Technology Co., Ltd.)</td>
</tr>
<tr>
<td>10:10-10:25 Online</td>
<td>Flow measurements under aerated plunging and spilling breaking waves using particle image velocimetry</td>
<td>Byoungjoon Na (Korea University)</td>
</tr>
<tr>
<td>12:00-13:30 Lunch break</td>
<td></td>
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</tr>
</tbody>
</table>
# P6 Field measurement, floating bodies, wave generation and analysis

**Saturday, 12th December (209, Teaching Building)**

**Chair:**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30-8:55</td>
<td>On-site keynote</td>
<td>Long-term Field Measurements of Beach-dune Dynamic Profiles on the Coast of Shandong Province, China Zaijin You (Dalian Maritime University)</td>
</tr>
<tr>
<td>8:55-9:10</td>
<td>Online</td>
<td>Harbour wave agitation analysis in the port of manta, ecuador William Jaen (To be determined)</td>
</tr>
<tr>
<td>9:10-9:25</td>
<td>On-site</td>
<td>Freak wave impact on a floating platform in the small-air-gap condition Min Luo (Zhejiang University)</td>
</tr>
<tr>
<td>9:25-9:40</td>
<td>On-site</td>
<td>Environmental Capacity Assessment in Sanmen Bay Jiahao Zhu (Zhejiang University)</td>
</tr>
<tr>
<td>9:40-9:55</td>
<td>On-site</td>
<td>High-speed soft robots enabled by combustion for structural health monitoring in ocean engineering Haipeng Wang (Zhejiang University)</td>
</tr>
<tr>
<td>9:55-10:10</td>
<td>Online</td>
<td>Mapping tidal currents at a tidal channel junction using fluvial acoustic tomography system Xiang Cong (Hiroshima University)</td>
</tr>
<tr>
<td>10:10-10:30</td>
<td></td>
<td>Tea break</td>
</tr>
</tbody>
</table>

**Chair:**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:30-10:55</td>
<td>On-site keynote</td>
<td>Hydrodynamics of floating breakwaters (FBs) in near-reef sea areas Chunyan Ji (Jiangsu University of Science and Technology)</td>
</tr>
<tr>
<td>10:55-11:10</td>
<td>Online</td>
<td>Extraction of higher harmonics in a focused wave group Xingya Feng (Southern University of Science and Technology)</td>
</tr>
<tr>
<td>11:10-11:25</td>
<td>On-site</td>
<td>Two-layered liquid sloshing in a tank under vertical excitation Dongming Liu (Tianjin University)</td>
</tr>
<tr>
<td>11:25-11:40</td>
<td>On-site</td>
<td>Internal Solitary Wave Breaking on Gaussian Ridge Junyang Yu (Zhejiang University)</td>
</tr>
<tr>
<td>11:40-11:55</td>
<td>On-site</td>
<td>Impacts of Three Gorges Dam on the spatial-temporal water level dynamics in the Yangtze River estuary, China Huayang Cai (Sun Yat-sen University)</td>
</tr>
<tr>
<td>12:00-13:30</td>
<td></td>
<td>Lunch break</td>
</tr>
</tbody>
</table>
## P7 Sediment transport, erosion, and sedimentation

**Saturday, 12th December (203, Teaching Building)**

### Chair:

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30-8:55</td>
<td>Development and application of a two-phase mixture model for sediment laden flows</td>
<td>Bingchen Liang (Ocean University of China)</td>
</tr>
<tr>
<td>8:55-9:10</td>
<td>Unified theory of sediment transport threshold and rate across subaqueous bedload, windblown sand, and windblown snow</td>
<td>Thomas Pähtz (Zhejiang University)</td>
</tr>
<tr>
<td>9:10-9:25</td>
<td>Floc size distributions of suspended cohesive sediments in estuarine and coastal waters</td>
<td>Xiaoteng Shen (Hohai University)</td>
</tr>
<tr>
<td>9:25-9:40</td>
<td>Boundary layer flow approximation for asymmetric oscillatory sheet flow</td>
<td>Xin Chen (China Agricultural University)</td>
</tr>
<tr>
<td>9:40-9:55</td>
<td>Rheology and its mechanism of clay sediment</td>
<td>Yuan Lin (Zhejiang University)</td>
</tr>
<tr>
<td>9:55-10:10</td>
<td>Mixing and propagating of weakly and strongly stratified two-layer lock-exchange gravity currents</td>
<td>Rui Zhu (Zhejiang University)</td>
</tr>
<tr>
<td>10:10-10:30</td>
<td>Tea break</td>
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<tr>
<td>10:30-10:45</td>
<td>Phosphorus transfer and transformation dynamics at sediment-water interface under propeller jet flow</td>
<td>Zhi Yu (Changsha University of Science and Technology)</td>
</tr>
<tr>
<td>10:45-11:00</td>
<td>Influence of three-dimensional topography on different regions of density</td>
<td>Jingyao Chen (Zhejiang University)</td>
</tr>
<tr>
<td>11:00-11:15</td>
<td>A theoretical model for describing channel axis deviation and cross-section change under the action of cross flow in coastal region</td>
<td>Wang Na (Jiangsu ocean university)</td>
</tr>
<tr>
<td>11:15-11:30</td>
<td>A logarithmic bottom boundary model for the unsteady and non-uniform swash</td>
<td>Fangfang Zhu (University of Nottingham Ningbo China)</td>
</tr>
<tr>
<td>11:30-11:45</td>
<td>Coastline change analysis along Quang Nam coast</td>
<td>Vu Huong Ngan (Thuyloi University)</td>
</tr>
<tr>
<td>11:45-12:00</td>
<td>Numerical simulation of hydrodynamic and sediment transport at Cua Lo Inlet, Quang Nam Province, Vietnam</td>
<td>Nguyen Quang Duc Anh (Thuyloi University)</td>
</tr>
<tr>
<td>12:00-13:30</td>
<td>Lunch break</td>
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</tbody>
</table>
# S2 Marine aquaculture engineering

**Saturday, 12\textsuperscript{th} December (220, Teaching Building)**

**Chair: Dejun Feng**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30-8:50</td>
<td>Dynamic response analysis of steel structure pen under the action of waves</td>
<td>Yong Cui</td>
<td>Yellow Sea Fisheries Research Institute</td>
</tr>
<tr>
<td>8:50-9:10</td>
<td>Experimental study on hydrodynamic characteristics of fishing nets with different materials in waves and currents</td>
<td>Changping Chen</td>
<td>Dalian Ocean University</td>
</tr>
<tr>
<td>9:10-9:30</td>
<td>Numerical simulation of the influence of the distances among artificial reefs on artificial reef flow effects</td>
<td>Xinxin Wang</td>
<td>China Ocean University</td>
</tr>
<tr>
<td>9:30-9:50</td>
<td>Hydrodynamic aspects of a floating fish farm with circular collar</td>
<td>Peng Li</td>
<td>Harbin Engineering University</td>
</tr>
<tr>
<td>9:50-10:10</td>
<td>Turbulence characteristics and mass transport in the near wake of fishing net panel</td>
<td>Dongdong Shao</td>
<td>Beijing Normal University</td>
</tr>
<tr>
<td>10:10-10:30</td>
<td>Tea break</td>
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</table>

**Chair: Yong Cui**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
<th>Institution</th>
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</thead>
<tbody>
<tr>
<td>10:30-10:50</td>
<td>Submarine cable online observation system and its application in marine Ranch</td>
<td>Yanzhen Gu</td>
<td>China Ocean University</td>
</tr>
<tr>
<td>10:50-11:10</td>
<td>Numerical simulation of hydrodynamic responses of a multi-body fish cage with single-point mooring system</td>
<td>Chao Ma</td>
<td>Dalian University of Technology</td>
</tr>
<tr>
<td>11:10-11:30</td>
<td>Numerical study of the hydrodynamic characteristics of a semi-submersible aquaculture facility in waves</td>
<td>Hangfei Liu</td>
<td>Dalian University of Technology</td>
</tr>
<tr>
<td>11:30-11:50</td>
<td>Numerical analysis of hydrodynamic loads on the structure of a marine fish cage</td>
<td>Ziming Xu</td>
<td>Shanghai Jiao Tong University</td>
</tr>
<tr>
<td>12:00-13:30</td>
<td>Lunch break</td>
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## S4 Coastal hazards and integrated management options

**Saturday, 12th December (226, Teaching Building)**

**Chair: Xiao-Hua Wang, Paul Liu**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
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</thead>
<tbody>
<tr>
<td>8:30-9:55</td>
<td><strong>Online keynote</strong> Dynamic response of coasts and estuaries to human impacts</td>
<td>Xiaohua Wang (UNSW Canberra, Australia)</td>
</tr>
<tr>
<td>9:55-9:10</td>
<td><strong>Online</strong> Alarming message from Asian major river deltas</td>
<td>J. Paul Liu (North Carolina State University, USA)</td>
</tr>
<tr>
<td>9:10-9:25</td>
<td><strong>Online</strong> Epidemic Mechanics: Three Theoretical Fundamental Epidemic Laws Based on Data of COVID-19 Pandemic</td>
<td>Junke Guo (University of Nebraska-Lincoln, USA)</td>
</tr>
<tr>
<td>9:25-9:40</td>
<td><strong>Online</strong> Modelling near-shore processes using an unstructured-mesh model</td>
<td>Yongsheng Wu (Bedford Institute of Oceanography, Dartmouth, Canada)</td>
</tr>
<tr>
<td>9:40-9:55</td>
<td><strong>Online</strong> Stochastic Modeling of the Fate and Behaviors of Oil Spill in the Salish Sea</td>
<td>Haibo Niu (Dalhousie University, Canada)</td>
</tr>
<tr>
<td>9:55-10:10</td>
<td><strong>Online</strong> A modified expression of bottom friction factor beneath nonlinear nearshore waves</td>
<td>Mingxiao Xie (Tianjin Research Institute for Water Transport Engineering)</td>
</tr>
<tr>
<td>10:10-10:30</td>
<td>Tea break</td>
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**Chair: Ya-ping Wang**

<table>
<thead>
<tr>
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<th>Session</th>
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<tbody>
<tr>
<td>10:30-10:55</td>
<td><strong>On-site keynote</strong> Surface water and groundwater interactions in coastal wetlands</td>
<td>Ling Li (Westlake University)</td>
</tr>
<tr>
<td>10:55-11:10</td>
<td><strong>On-site</strong> Numerical investigation of transformation and runup of solitary wave over permeable fringing reef using a non-hydrostatic model</td>
<td>Ke Qu (Changsha University of Science &amp; Technology)</td>
</tr>
<tr>
<td>11:10-11:25</td>
<td><strong>On-site</strong> Summer monsoon facilitated off-shelf transport of dissolved aluminum across the East China Sea</td>
<td>Zhaowei Wang (Dalian Maritime University)</td>
</tr>
<tr>
<td>11:25-11:40</td>
<td><strong>Online</strong> Particle track modelling and observations to better understand complex sediment transport pathways, Darwin Harbour, Northern Territory, Australia</td>
<td>David Williams (inStream techniques, Darwin NT, Australia)</td>
</tr>
<tr>
<td>12:00-13:30</td>
<td>Lunch break</td>
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</table>
## Plenary speeches & Closing ceremony

### Saturday, 12th December (Haiji Hotel)

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
</table>
| 14:20-15:00 Online | Plenary speech: Coastal Hydrodynamics of Coral Reefs and Islands  
Jinhai Zheng (Hohai University) |
| 15:00-15:40 Online | Plenary speech: Wave and current damping in mangroves  
Marcel Stive (Delft University of Technology) |
| 15:40-16:20 Online | Plenary speech: Development of the multi-float wave energy converter M4: experiments, linear modelling, mean forces and moorings  
Peter Stansby (University of Manchester) |
| 16:20-        | Closing ceremony                                                      |