# IWMO 2025 - Stanford University

## June 30 - July 1, 2025

Red = Keynote, Blue = OYSA Candidate

Keynote presentations: 20 minutes + 5 minutes for questions/discussion

Other presentations: 15 minutes + 2 minutes for questions (Note that the talks may end before the end of some sessions)

### Monday, June 30

| Start time | Duration | Moderator | Description | Speaker |
|---|---|---|---|---|
| 8:00 AM | 1:00 | | Breakfast/checkin | |
| 9:00 AM | 0:15 | Oliver Fringer | Welcome | |
| 9:15 AM | 1:00 | Tal Ezer | Monday Session 1: Internal waves | |
| 9:15 AM | 0:25 | | Three-Dimensional Shoaling and Breaking of Internal Solitary Waves over a Conical Island | Shuwen Tan (Keynote) |
| 9:40 AM | 0:17 | | Numerical experiments on internal waves excited by the surface waves | Takumi Nishikawa |
| 9:57 AM | 0:17 | | Vertical coordinate schemes for internal wave shoaling on a continental shelf | Chris Li |
| 10:15 AM | 0:20 | | Break | |
| 10:35 AM | 0:55 | Fei Chai | Monday Session 2: Surface waves | |
| 10:35 AM | 0:17 | | Parameterizing the surface-wave breaking in shallow water in wave-resolving simulations | Haruka Imamura |
| 10:52 AM | 0:17 | | The Quantification of Wave–Current Interactions in a Tide-Dominated Harbour: A Fully Coupled Modeling Study of Darwin Harbour, Australia | Nazeat Ameen Iqra (Hybrid) |
| 11:09 AM | 0:17 | | Predicting significant wave height in Southwest South Atlantic Ocean with ConvLSTM neural network | Ricardo de Camargo |
| 11:30 AM | 1:30 | | Lunch + Workshop group photo | |
| 1:00 PM | 1:20 | Huijie Xue | Monday Session 3: Coupled physical-biological processes | |
| 1:00 PM | 0:25 | | Addressing uncertainty in modeling ocean physics and biogeochemistry in the California Current System | Christopher A. Edwards (Keynote) |
| 1:25 PM | 0:17 | | Physical and biological processes and their impacts on oxygen minimum zone in the Indian Ocean | Fei Chai |
| 1:42 PM | 0:17 | | Beyond lethal temperatures: Factors behind the disappearance of chum salmon from their southern margins under climate change | Yu-Lin Eda Chang (Hybrid) |
| 1:59 PM | 0:17 | | Evaluation of seagrass as a nature-based solution for coastal protection in the German Wadden Sea under end of the century sea level rise projections | Benjamin Jacob (Hybrid) |
| 2:20 PM | 0:20 | | Break | |

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| 2:40 PM | 0:55 | Xiao Hua Wang | Monday Session 4: Global and basin-scale circulation | |
| 2:40 PM | 0:17 | | Attention-Enhanced, Multi-branch ResNet for Reconstruction and Source Attribution of Indonesian Throughflow Variability | Huijie Xue |
| 2:57 PM | 0:17 | | A Nested-Grid Modelling System for Simulating Circulation and Sea Ice over the Continental Shelf off Eastern Canada | Jinyu Sheng |
| 3:14 PM | 0:17 | | Ocean Circulation with True Gravity due to Nonuniform Earth Mass Density | Peter C Chu |
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| 3:35 PM | 2:00 | | Poster session + happy hour (See below for posters) | |
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| 5:35 PM | | | End of day - dinner on your own | |
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| Tuesday, July 1 | | | | |
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| Start time | Duration | | Description | Speaker |
| 8:00 AM | 1:00 | | Breakfast/checkin | |
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| 9:00 AM | 1:20 | Ricardo de Camargo | Tuesday Session 1: Mixing and submesoscale processes | |
| 9:00 AM | 0:25 | | Effects of Vertical Mixing on Submesoscale Fronts | Daniel Dauhajre (Keynote) |
| 9:25 AM | 0:17 | | On the genesis and development of coastal submesoscale eddies in the Northwestern Black Sea shelf | Carolina Gramcianinov (Hybrid) |
| 9:42 AM | 0:17 | | Wind and Wave-induced mixing represented by the PWP ocean mixed layer model; Validation and Possible Improvement | Yutaka Yoshikawa |
| 9:59 AM | 0:17 | | Long-term variabilities of the summer circulation in an estuary-shelf system in the Northern South China Sea | Cheng Weicong (Hybrid) |
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| 10:20 AM | 0:20 | | Break | |
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| 10:40 AM | 1:00 | Jinyu Sheng | Tuesday Session 2: Numerical methods | |
| 10:40 AM | 0:25 | | Navigating New Depths: Are High-Order Galerkin Methods a Pathway to Next-Generation Ocean Modeling? | Michal Kopera (Keynote) |
| 11:05 AM | 0:17 | | Hybrid vertical coordinates for modeling internal solitary waves | Brooke Pauken |
| 11:22 AM | 0:17 | | Investigating physical properties of the two-time stepping Euler forward Runge-Kutta schemes in the shallow water equations | Jia Wang (Hybrid) |
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| 11:40 AM | 1:30 | | Lunch | |
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| 1:10 PM | 1:25 | Oliver B. Fringer | Tuesday Session 3: Estuaries and coasts | |
| 1:10 PM | 0:17 | | On the interaction between Atlantic Ocean variability and the dynamics of bays along the U.S. East coast | Tal Ezer |
| 1:27 PM | 0:17 | | Model-based assessment of sustainable adaptation options for an industrialised meso-tidal estuary | Johannes Pein (Hybrid) |
| 1:44 PM | 0:17 | | Modeling fluvial sediment transport and retention dynamics in the Ganges-Brahmaputra River system of Bangladesh | Numan Al Kibriya (Hybrid) |

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| 2:01 PM | 0:17 | | Sediment Transport Analysis for Planned Dredging and Beach Nourishment in Batemans Bay, NSW, Australia | Yuan Yuan (Hybrid) |
| 2:18 PM | 0:17 | | The Dependence of the Atlantic Meridional Overturning Circulation on Topography (Original talk: (Withdrawn) Wave-current interaction on turbulence mixing and sediment resuspension in muddy tidal flats, by Li Li) | Yaocheng Deng (Hybrid) |
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| 2:35 PM | 0:20 | | Break | |
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| 2:55 PM | 1:10 | Yutaka Yoshikawa | Tuesday Session 4: Coastal modeling methods | |
| 2:55 PM | 0:17 | | FOCCUS: Advancing Coastal Modeling for the Protection of European Coasts | Joanna Staneva (Hybrid) |
| 3:12 PM | 0:17 | | A relocatable ocean modelling case study of Quatsino Sound, British Columbia | Yuehua Lin |
| 3:29 PM | 0:17 | | Modelling the Climate-Change-Induced Major Floods on the Southeast Australian Coast | Xiao Hua Wang |
| 3:46 PM | 0:17 | | Toward digital twin of the regional earth system in the GBA | Jianping Gan (Hybrid) |
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| 4:05 PM | 0:25 | | Break | |
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| 4:30 PM | 1:00 | | OYSA Presentations, IWMO 2026, Special issue and concluding remarks | |
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| 5:30 PM | 2:30 | | Social hour and dinner | |
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| Posters (3:35 PM - 5:35 PM, Monday, June 30) | | | | |
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| | | | (Changed to oral presentation) The Response of Antarctic Intermediate Water to Global Warming | Yaocheng Deng |
| | | | Optimizing the nonhydrostatic pressure solver in the SUNTANS model using the hypre library | Devin Dollery |
| | | | The Effects of Increasing the Coupling Frequency and Considering the Sublayer Temperature on the Simulation by CAS-ESM2 | Xiao Dong |
| | | | Wind Modulation of Salinity Stratification Dynamics in a highly modified estuary | Xiaomei Ji |
| | | | Vertical coordinate schemes for internal wave shoaling on a continental shelf | Chris Li |
| | | | Hybrid vertical coordinates for modeling internal solitary waves | Brooke Pauken |
| | | | FOCCUS: Advancing Coastal Modeling for the Protection of European Coasts | Joanna Staneva |
| | | | Coupled Wave–Ocean Modeling (COAWST) of Willapa Bay and Grays Harbor WA | Walter Torres |