

AI-TT Workshop, 13&14 April 2026, Montrea, Canada - AGENDA

Version: 26 Feb 2026

13th April - Day 1

start end duration

09:00 09:30 00:30 Arrival, registration etc.

09:30 11:15 01:45 **Block 1 talks - Ocean emulators**

Anass El Aouni, MOI	Toward Scalable and Probabilistic Neural Ocean Forecasting
Daniel Holmberg, University of Helsinki (remote)	Accurate Mediterranean Sea forecasting via graph-based deep learning
Francois Roy, ECCO	Application of Deep learning (DL) in the Gulf of St. Lawrence and Estuary
Xiaoyan Li, Southern Marine Science and Engineering Guangdong Laboratory (Zhuhai)	AI-driven Nanming Model for Three-dimension Ocean Variable Forecasting
Jae-Hun Park, Inha University	Prediction of sea surface currents around the Korean peninsula using artificial neural networks

11:15 11:45 00:30 **Coffee**

11:45 12:45 01:00 **Discussion session 1 (themes tbc)**

12:45 14:00 01:15 **Lunch - self pay at local restuarants**

14:00 14:15 00:15 **Poster flash talks (2 min per author to 'introduce' their poster)**

14:15 15:15 01:00 **Poster viewing and coffee**

Teresa Tonelli, OGS	Filling the Ocean's Gaps: a Self-Supervised Neural Network for Argo Profiles Data Augmentation
Daniele Bigoni, CMCC	Assimilation of sea surface temperature in the Mediterranean Sea using ML-based operators
Xudong Huang, Dalhousie University	Detection and Discrimination of Marine Oil Spills and Look-alike Phenomena in Synthetic Aperture Radar Imagery
Jacopo Dall'Aglio, University of Bologna	Machine Learning Forecast Correction for Geophysical Fields
Biao Zhang, Dalhousie University (tbc)	Hybrid Physics-Guided Data-Driven Estimation of Wave-Induced Doppler shifts for SAR Ocean Surface Current Retrieval

Simone Spada, OGS	Bridging Scales in Mediterranean Biogeochemical Prediction: A High-Order Ensemble Assimilation Coupled with AI-Driven Downscaling
Rachel Furner, ECMWF	Data-driven ocean modelling at ECMWF

15:15 17:00 01:45 [Block 2 talks - Observations and data assimilation](#)

Daniel Zhu, IMT Atlantique	Training end-to-end neural mapping schemes from simulation data for the reconstruction of global-scale sea surface fields
Daria Botvynko, IMT Atlantique	Short-term neural forecasts of ocean dynamics from sparse satellite observations
Teresa Tonelli, OGS	Two-Phase CNN for Model Data Fusion: Predicting 3D Chlorophyll-a in the Mediterranean Sea
Geon Min Lee, Pukyong National University	A Deep-Learning Observation Operator for Subsurface Thermohaline Reconstruction from Satellite Surface Observations
Liyang Wan, NMEFC	AI perform on high resolution three-dimensional ocean forecasting: remote sensing data driven becomes a new possibility

17:00 Optional pub trip

18:30 Dinner at Trois Brasseurs on St. Denis

14th April - Day 2

09:00 10:45 01:45 [Block 3 talks - Emulators](#)

Andrew Moore, UCSC	Linear Stochastic Emulators of the Ocean Circulation - A Lesson, perhaps, for Machine Learning
Mateusz Matuszak, Met.no	A data driven limited area storm surge model
Annalisa Bracco, CMAA (remote)	A Physics Informed Emulator for Ocean Oxygen.
Fang Hou, NMEFC	Application and Verification of the Global Wave Intelligent Forecast Model
<i>Michael Dunphy, DFO (tbc)</i>	Development of machine-learning emulators for harbour-scale ocean prediction

10:45 11:15 00:30 [Coffee](#)

11:15 12:15 01:00 **Keynote on oceanbench, with hands-on demo** OceanBench: A Benchmark for Data-Driven Global Ocean Forecasting systems
Anass El Aouni, MOI

12:15 13:30 01:15 Lunch - self pay at local restuarants

13:30 15:15 01:45 **Block 4 talks - Downscaling and other ML applications**

Xueming Zhu, Southern Marine Science and Engineering Guangdong Laboratory (Zhuhai)	Intelligent forecasting of marine environmental elements in the South China Sea
Alessandro De Lorenzis, CMCC (remote)	From Coarse Models to Coastal Detail: A Deep Learning Approach to AI based Statistical Downscaling in the Adriatic Sea
Joanna Staneva, Hereon	Integrated AI_Physics Approaches for Coastal Prediction Across the Open-to-Coastal Ocean Continuum
Christopher Subich, ECCO	Fix the double penalty in data-driven forecasting by modifying the loss function
Kunihiro Aoki, MRI-JMA	Variational autoencoder-based clustering for geophysical fluid circulations with small sample size

15:15 15:50 00:35 Coffee

15:50 16:50 01:00 Discussion session 2 (themes tbc)

16:50 17:00 00:10 Conference wrap up

17:00 Close