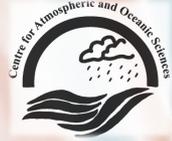


International Workshop and Summer School Oceans in a Changing Climate and their Prediction



When: 8 – 18 July 2025
Where: CAOS, IISc, Bengaluru

Topics

- Ocean Science
- Modeling
- Prediction
- Machine Learning

Highlights

- Expert-led Keynote Sessions
- Invited Lectures
- Research Presentations
- Hands-On Technical Training

Applications Open

Present and prospective PhD Students, Postdocs, Early Career Scientists

To Apply

Send an email to: office.dccc@iisc.ac.in

Subject Line: Oceans Workshop 2025

Include the following information in a document as attachment:

Full Name

Profession (if student, mention course and year)

Institution/Organization

Contact Information (Email and Phone Number)

Short Statement (about 100 words) on how this workshop will benefit you

Apply Before: 13 April 2025

Co-convenors

P. N. Vinayachandran & Deepak Subramani

Supported By

Centre for Atmospheric and Oceanic Sciences & Divecha Centre for Climate Change, IISc Bengaluru
BRICS-PARADIGM Project, Department of Science & Technology, Govt. of India.

(Draft)

Confirmed Speakers and topics

Jennifer Veitch, **SAEON , Cape Town** : Regional Ocean Modelling with the Coastal and Regional Ocean Community

Laura Braby, **SAEON , Cape Town** : Model evaluation methods: South African Case study

Jennifer Veitch, Laura Braby and Giles Fearon, Hands on session : Running a downscaled operational forecast system in CROCO

Jennifer Veitch, Laura Braby and Giles Fearon, Hands on session : Particle tracking using OpenDrift

Fangli QIAO, **First Institute of Oceanography, China**: New generation models for ocean and climate prediction

Roman Sedakov, **Shirshov Institute of Oceanology, Russian Academy of Science**: "General circulation modelling with NEMO"

Mikhail Krinitiskiy, **Moscow Institute of Physics and Technology**, : Machine learning for discriminative and exploratory tasks in Earth Sciences

Mikhail Krinitiskiy, hands-on session on : Artificial neural networks for discriminative and exploratory tasks in Earth Sciences: building, efficient training and debugging

Mauro Cirano, **Institute of Geosciences, Federal University of Rio de Janeiro**, : The role of transients in the circulation along the Brazilian Continental Margin

Nathan Steiger, **Institute of Earth Sciences, Hebrew University of Jerusalem** : Oceanic influences on long-term hydroclimate.

Nathan Paldor, **Institute of Earth Sciences, Hebrew University of Jerusalem**: Non-harmonic (trapped) midlatitude wave theory,

Aviv Solodoch, **Institute of Earth Sciences, The Hebrew University of Jerusalem**: The Oceanic Overturning Circulation: from small scale mixing to climate impacts.

Changshui XIA: **First Institute of Oceanography, Ministry of Natural Resources, China**

Wave-tide-Circulation coupled model and its application in the operational ocean forecast -

Hezi Gildor, **Institute of Earth Sciences, The Hebrew University of Jerusalem**: Ocean chaotic mixing

Arya Paul, INCOS, MoES: "A machine learning framework for prediction of ocean surface variables (Lecture and hands on sessions)

Ori Adam, The Hebrew University of Jerusalem, "Pacific cold-tongue bias in CMIP5/6 linked to shifts in extratropical subduction zones."

Deepa N Subramani, Indian Institute of Science,: Machine learning applications in ocean observations, modelling, and forecasting. (Lecture and hands on sessions)

P. N. Vinayachandran, Indian Institute of Science: Application of Ocean General Circulation models.

To be updated ...

For updates visit: <https://caos.iisc.ac.in/index.html>