First Workshop on Observing and Predicting the Global Coastal Ocean
Venue: Lecce, Italy

11-13 May 2023

Join Zoom Meeting
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Meeting ID: 832 0469 1520
Passcode: 145493

Type of meeting: **in person and online**
For more information: Giovanni giovanni.coppini@cmcc.it and Simone simone.phore@cmcc.it

Main aim of the workshop:
- Overview status of PredictOnTime implementation and discussion on the next steps
- Refine the PredictOnTime contribution to the CoastPredict 'Global Coastal Experiment ': principles, proposed selection sites, list of outcomes, what new technologies and methodologies are required, testing of hypotheses etc.
- Overview of current initiatives and projects connected to PredictOnTime work packages and activities

Thursday, 11 May 2023

09:00- 11:25   **Session 1: Introductions and scene setting**

09:00-09:10   (10 min) Welcoming Remarks | Antonio Navarra, CMCC President
09:10-09:20   (10 min) The UN Decade CoastPredict Programme. Nadia Pinardi, Uni. Bologna
09:20-09:30   (10 min) The UN Decade PredictOnTime Project. Giovanni Coppini, CMCC
09:30-09:40   (10 min) Future Coastal Oceans Climate | Flame, Jo Hopkins, NOC
09:40-09:50   (10 min) UN Coastal Resilience DCC |Nadia Pinardi, Uni. Bologna

09:50 - 10:00   Discussion

10:00 - 10:20   (20 min) Guest speaker: "Aquarius: an integrated coastal hazard prediction
                                 system", Delphine Lobelle, Fugro

10:20 – 10:50   Coffee break

10:50 - 11:00   (10 min) UN Ocean Prediction DCC |Enrique Alvarez Fanjul, MOi [Online]

11:00 – 13:00 **Session 2: Innovative coastal observing systems**
                Presentations from submitted abstracts

11:00 - 11:15 i) Pauline Mwangi (Oral, online):
                        Assessment of impacts of shoreline change
                        on the nearshore marine environment at
                        Gazi Bay, Kenya

11:15 - 11:20 ii) Hellen Kizenga (Online, Poster):
                        Variability of mackerel fish catch and remotely-sensed
                        biophysical controls in the eastern Pemba Channel

11:20 -11:35 iii) Juliet Hermes (Oral):
                        Developing a Coastal Observation Lab in a Box - COLaB

11:35 - 11:40 iv) Courtney Bouchard (poster):

                        Efforts to use near-real time data collection to assist in the
                        monitoring and forecasting of the northern Gulf of Mexico
                        hypoxic event

11:40-11:55   v) Anwesha Ghosh (online, oral):
                        Phytoplankton community dynamics under potential ocean
                        acidification scenarios: a case study from the Indian
                        Sundarbans

11:55 - 12:00 vi) Jhon Bermudez (poster):

                        Low-cost coastal observation system in vulnerable
                        communities of the Caribbean

12:00 - 12:15 viii) Alban Lazar (online, oral):

                        COCAS: Coastal Ocean Observatory of Climate Change, CO2
                        and Acidification in the Global South

12:15 - 12:20   ix) Peter Busumprah (online, Poster):
                        digitization of Ghana aquaculture sector

12:20 - 12:35 x) Zacharie Sohou (online, oral):

Seasonal and inter-annual ONSET Sea Surface Temperature variability along the northern coast of the Gulf of Guinea

12:35 - 12:40   xi) David Mwandikwa (Poster, online):

EFFECTS OF TRIGGERFISH ABUNDANCE AND HABITAT STRUCTURE ON POPULATIONS OF THE SEA URCHIN Tripneustes gratilla IN SEAGRASS MEADOWS OF KENYA

12:40 - 12:45   xii) Viviana Piermattei (poster):

New marine technologies toward a Coastal Ocean Of Things (COOT)

Round Table/ Discussion (10 min)

13:00- 14:00   Lunch

14:00-16:05   **Session 3: Innovative integrated coastal modeling capacity**
                Presentations from submitted abstracts

14:00 - 14:10   i) Shan Gao (Oral):

Validation of the operational ecosystem models and forecasts for China coastal seas

14:10 - 14:25   ii) Matías Dinapoli (Online, oral):

Improving the short-range forecast of storm surges in the Southern-West Atlantic Continental Shelf using 4DEnSRF data assimilation

14:25 - 14:30   iii) Pencheng Wang (Online, Poster):
                The Global Deterministic storm Surge Prediction System (GDSPS) v2: Adding Baroclinicity and Sea Ice Effects

14:30 - 14:40 iv) Donata Canu (Online,oral):

The coupled SHYFEM-BFM for scenario analysis in the regulated Venice Lagoon system

14:40 -14:50 v) Ivan Federico (Oral):

Storm surge model forecasting and the attenuating role of nature based solutions

14:50 - 15:05 vi) Ginevra Rosati (oral):

Developing new tools for contamination assessment and management of coastal-marine ecosystems

15:05 - 15:20 vii) Sara Morucci (online, oral):
Managing the Uncertainty: 'Acqua Alta' in Venice

15:20 - 15:25   viii) Imane Joudar (Online, poster):
Impact of marine submersion on the Atlantic coast case of El Jadida bay

15:25- 15:30   ix) Nouhaila Erraji Chahid (online, Poster):

Hydrodynamic Modeling of Moulay Bousselham Lagoon (Morocco): Numerical investigations

15:30 - 15:45 x) Stefano Querin (Oral):

Coupled hydrodynamic-biogeochemical modeling for short-term forecasts in the northern Adriatic Sea

15:45 - 15:50 xi) Italo Dos Reis Lopez (Poster):
DEVELOPMENT OF A COASTAL MODELLING SYSTEM FOR FLOOD PREDICTION

15:50 - 16:05 xii) Mahmud Hasan (oral):

Reassessment of heat budget in the Mediterranean Sea and an investigation of probability distributions of heat fluxes using Extreme Value Theory

16:05 - 16: 15   Round Table/ Discussion

16.15-16:45   Coffee break

16.45 -17:30 **Session 4: Data assimilation and machine learning in the coastal ocean**
Presentations from submitted abstracts

16:45 - 17:00 i) Rodrigo Campos Caba (Oral):

Preliminary developments for a machine-learning downscaling and prediction system trained on long-term numerical simulations of sea levels

17:00 - 17:15 ii) Dr. Geetali Saha (Online, oral):

Prediction of SSTA HadISST dataset using machine learning techniques

17:15 - 17:30 ***Round Table/ Discussion***

17:30-19:00 **Drinks reception and posters at CMCC**

Friday, 12 May 2023

09:00 – 11:00 **Session 5: End-to-end demonstration through key applications**
Presentations from submitted abstracts

09:00- 09:15 i) Joanna Staneva (Oral):

Predicting of Land to Ocean Continuum and What-If Scenario for nature-based solutions

09:15 - 09:30 ii) Joao Souza (oral):

An end-to-end forecast system utilizing ship-based ocean observations

09:30 - 09:45 iii) George Zodiatis (Online,oral):

Examples why operational and down-streaming forecast is useful to the key end-users in the Med-Sea

09:45- 10:00 iv) Marco Marcelli (Oral):

Renovate: Project: ecosystem approach for compensation and mitigation actions in the coastal marine environment

10:00 - 10:15 v) Nkululeko Memela (oral):

Operational Ocean Modelling for Improved Decision Making: a South African Perspective

10:15 - 10:30 vi) Edgard Cabrera (Oral):
Ocean Decade Project: Integrating Coastal Hazard Early Warning Systems for the Tropical Americas and Caribbean (iCHEWS

10:30 - 10:45 vii) Begoña Pérez (Online):

OSPAC: Oceanographic services of ports and cities

10:45 - 11:00   viii) Slim Gana (oral):

Operational Oceanography for fish-farming assistance to day-to-day production

11:00 - 11:05 ix) Milica Predragovic (Poster):

Climate change effects on European marine protected areas

11:05 -11:35   Coffee break

11:35 - 11:50 x) Aldo Drago (Oral):

Connecting Space Data to Society

11:50 - 12:05 xi) Terhile Dominic Uchi (oral):

Coastal Resilience and Climate Change

12:05 - 12:20 xii) Magak Adel (online, oral):

        COMMUNITY PERCEPTION OF THE EFFECTS OF CLIMATE CHANGE
        IN THE LAKE REGION, A CASE STUDY OF HOMA BAY COUNTY

12:20 - 12:35 xiii) Felix Dols (oral):
        EDiTO-lab: an EU Horizon project

12:35 – 13:10   Breakout group discussion and activities

13:10 – 13:30 Reporting and discussion in plenary

13:30- 14:30   **Lunch**

14:30   **Session 6: The CoastPredict Global Coastal**

        (15 min) Global Coast – The CoastPredict Global Coastal Ocean Experiment.
        Nadia Pinardi, Uni.Bologna, Italy [Invited speaker]

        Discussion

        Breakout group discussion and activities

16:30-17:00   Coffee break

17:00-18:00   **Session 7: Next Steps**

        Reporting and discussion in plenary (continued from session 6)
        Parallel discussion sessions on Next Steps
        Formal close of meeting and remarks from PredictOnTime team

20:00   Conference Dinner (Arryvo)

        Via Adua, 24, 73100 Lecce LE

Saturday, 13 May 2023

10:00-15:30 Networking and Guided Tour in Lecce City Centre