EuroSea/OceanPredict workshop

Met Office

29 June – 1 July 2022

AGENDA

including poster information

Please note, all times on the agenda are given as local times (BST: British Summer Time)

Version: 26 June 2022

Day 1 – 29 June 2022				
8:00 – 9:00	60 min	Registration + morning coffee/tea		
9:00 – 9:05	5 min	Welcome to the Met Office – Andrew Saulter		
9:05 - 9:30	25 min	General introduction		
		Session 1: OSEs & OSSEs in support of observing system design		
		Session chair and rapporteur: Elisabeth Remy (MOI) & Matt Martin (Met Office)		
09:30 - 9:35	5 min	**Introduction to session 1**		
09:35 - 9:55	20 min	Joao Marcos	Azevedo Correia de Souza	MetOcean Solutions, a division of Meteorological Service of New Zealand	Assimilation of fishing vessel derived observations into an operational ocean forecast system
09:55 - 10:15	20 min	Peter	Oke	CSIRO	Using Argo data for ocean reanalysis: some pitfalls to avoid
10:15 - 10:35	20 min	Florent	Gasparin	IRD/LEGOS, Toulouse	Identifying constrained scales by ocean observations in global ocean analyses
10:35 - 10:55	20 min	Biswamoy	Paul	Indian National Centre for Ocean Information Services, Hyderabad, India	A study of forecast sensitivity to observations in Bay of Bengal using LETKF
10:55 - 11:20	25 min	Coffee break			
11:20 - 11:40	20 min	Ali	Aydogdu	Fondazione CMCC	Assimilation of glider profiles in the Mediterranean Analysis and Forecasting System MedFS
11:40 - 12:00	20 min	Jennifer	Waters	Met Office	Assessing the impact of assimilating Total Surface Current Velocities in global ocean forecasting systems
12:00 - 12:20	20 min	Robert	King	Met Office	The impact of upcoming wide-swath and along-track altimeter constellations in global and regional ocean forecasting systems
12:20 - 12:40	20 min	Davi	Mignac Carneiro	Met Office	Improving the Met Office's Forecast Ocean Assimilation Model (FOAM) with the assimilation of satellite-derived sea-ice thickness data from CryoSat-2 and SMOS in the Arctic

Time	Duration	First Name	Last Name	Affiliation	Title
12:40 - 13:00	20 min	Eric	Chassignet	Florida State University	Towards a next generation AMOC observing system
13:00 - 14:00	60 min	Lunch			
14:00 - 14:30	30 min	Poster introduction session 1			
14:30 - 14:50	20 min	Bàrbara	Barcelo-Llull	IMEDEA (CSIC-UIB), Spain	Evaluating in situ sampling strategies for SWOT satellite validation
14:50 - 15:10	20 min	Andrew	Moore	University of California Santa Cruz	Forecast Sensitivity-based Observation Impact (FSOI) and Forecast Sensitivity to Observations (FSO) in an Analysis-Forecast System of the California Current Circulation
15:10 - 15:30	20 min	Session 1 discussion			
15:30 - 16:00	30 min	Coffee break			
		Session 2: Extreme marine events – observing, modelling, forecasting and user accessibility			
		Session chair and rapporteur: Tomasz Dabrowski (MI) and Martha Dunbar (ICMAN)			
16:00 - 16:05	5 min	Introduction to session 2			
16:05 - 16:25	20 min	Hyun-Sook	Kim	NOAA/AOML	Numerical study of the upper ocean response to Hurricane Laura
16:25 - 16:45	20 min	Matthieu	Le Henaff	University of Miami/CIMAS-NOAA/AOML	Ocean OSSEs and OSEs for hurricane applications
16:45 - 17:05	20 min	Emanuela	Clementi	CMCC	The September 2020 Medicane Ianos predicted by the Copernicus Mediterranean Forecasting systems
17:05 - 17:10	5 min	Close of day 1			
17:10		End of Day 1			

Day 2 – 30 June 2022

8:30 – 9:00	30 min	**Morning coffee/tea**			
		Session 2: Extreme marine events – observing, modelling, forecasting and user accessibility			
		Session chair and rapporteur: Tomasz Dabrowski (MI) and Martha Dunbar (MI)			
9:00 - 9:30	30 min	**Poster introduction session 2**			
9:30 - 9:50	20 min	**Samuel**	**Adiprabowo**	**Badan Meteorologi Klimatologi dan Geofisika**	**Utilization of water-level measurement and analysis under extreme conditions: Case Study Severe Tropical Cyclone Seroja**
9:50 - 10:10	20 min	**Ronan**	**McAdam**	**CMCC**	**Seasonal forecasting of surface and sub-surface marine heat waves: a global validation and comparison**
10:10 - 10:30	20 min	**Hugo**	**Dayan**	**Laboratoire de Météorologie Dynamique/IPSL, Ecole Normale Supérieure, CNRS, Paris, France**	**Marine Heat Waves in the Mediterranean Sea: an assessment from the surface to the subsurface to meet national needs**
10:30 - 10:50	20 min	**Mélanie**	**Juza**	**SOCIB**	**The "Sub-regional Mediterranean Marine Heat Waves" monitoring and visualization tool**
10:50 - 11:20	30 min	Coffee break			
11:20 - 11:40	20 min	**Coline**	**Poppeschi**	**Ifremer, Univ. Brest, CNRS, IRD, Laboratory for Ocean Physics and Satellite remote sensing (LOPS), IUEM, 29280 Brest, France.**	**Coastal and regional marine heatwaves and cold-spells in the Bay of Biscay and the English Channel**
11:40 - 12:00	20 min	**Louise**	**Darroch**	**National Oceanography Centre**	**The use of Internet of Things sensors and ERDDAP in a nowcast hazard alerting coastal flood system**
12:00 - 12:20	20 min	**Session 2 discussion**			
		Session 3: Coastal Ocean: Modelling, observing system design and product utility			
		Session chair and rapporteur: Andrew M Moore (UCSC), Jann Paul Mattern (UCSC) and David Ford (Met Office)			
12:20 - 12:25	5 min	**Introduction of session 3**			

12:25 - 12:45	20 min	Julie	Jakoboski	MetOcean Solutions (Meteorological Service of New Zealand)	Crowd Sourcing Ocean Observations for Ocean Forecasting Data Assimilation
12:45 - 13:05	20 min	Nelly Florida	Riama	The Agency for Meteorology Climatology and Geophysics Republic of Indonesia	Improvement of Ocean Forecasting System for Enhancing Marine Information in Maritime Continent
13:05 - 14:00	60 min	Lunch			
14:00 - 14:20	20 min	Poster introduction session 3			
14:20 - 14:40	20 min	Christopher	Stokes	Coastal Marine Applied Research, University of Plymouth.	Sources of uncertainty in coastal overtopping forecasts: observation and modelling of waves, water levels, and discharge
14:40 - 15:00	20 min	David	Ford	Met Office	Towards adaptive monitoring of coastal oceans integrating marine robots and operational forecasts
15:00 - 15:20	20 min	Emma	Reyes Reyes	SOCIB, Balearic Islands Coastal Observing and Forecasting System, Spain	European high-frequency radars as a valuable asset to validate and improve ocean prediction in coastal areas.
15:20 - 15:40	20 min	Xin	Li	German Federal Maritime and Hydrographic Agency (BSH)	A comparison of data assimilation experiments in an operational model system for the North and Baltic Sea
15:40 - 16:10	30 min	Coffee break			
16:10 - 16:30	20 min	Alice	Soccodato	EMBRC	Towards an extended biological and oceanographic observatory for marine ecosystem monitoring
16:30 - 16:50	20 min	Yongzuo	Li	IMSG at NOAA/NWS/NCEP/EMC	Sensitivity of HAFS to MOM6 Data Assimilation initialization
16:50 - 17:10	20 min	Jann Paul	Mattern	University of California Santa Cruz	A four-dimensional ensemble optimal interpolation approach for adjoint-free data assimilation in a regional biogeochemical ocean model
17:10 - 17:30	20 min	Discussion			
17:30 - 17:35	5 min	Close of day 2			
17:35		End of Day 1			

18:00 - 20:00	120 min	Evening reception – Met Office Street & Restaurant

Day 3 – 1 July 2022					
8:30 – 9:00	30 min	Morning coffee/tea			
		Session 4: EuroSea & OceanPredict – support for the UN Ocean Decade			
		Session chair and rapporteur: Kirsten Wilmer-Becker (Met Office) and Fraser Davidson (DFO/ECCC)			
9:00 - 9:05	5 min	Introduction to session 4			
9:05 - 9:15	10 min	Poster introduction session 4			
9:15 - 9:35	20 min	Eric	Chassignet	Florida State University	ForeSea
9:35 - 9:55	20 min	Giovanni	Coppini	CMCC	CoastPredict: Empowering coastal communities to address global challenges
9:55 - 10:15	20 min	Elisabeth	Remy	MOI	SynObs: a UN Decade project on Synergistic Observing Network for Ocean Prediction
10:15 - 10:45	30 min	Coffee break			
10:45 - 11:05	20 min	Sabrina	Speich	ENS – PSL/IPSL	ObsCoDe
11:05 - 11:25	20 min	Adèle	Révelard	SOCIB	Ocean integration: how can we improve coordination between observing activities?
11:25 - 11:45	20 min	Discussion Session 4			
11:45 - 11:55	10 min	Introduction to the round table			
11:55 - 13:00	65 min	Round table discussion Invited experts: Pierre-Yves Le Traon (Mercator Ocean International), Fraser Davidson (DFO/ECCC), Sabrina Speich (END-PSL/IPSL) and Johannes Karstensen (GEOMAR)			
13:00 - 13:10	10 min	Thank you and close			

Poster sessions

Session 1

Théo	Brivoal	Mercator Ocean International	1.1	A new kilometric resolution zoom over the North-East Atlantic based on NEMO 4.2 (IMMERSE) version
Matthew	Carr	SAEON	1.2	Operational ocean modelling within South Africa; a downscaling approach
Gianpiero	Cossarini	National Institute of Oceanography and Applied Geophysics - OGS	1.3	Assessing the impact of BGC-Argo data assimilation into the Copernicus operational model system of the Mediterranean Sea biogeochemistry
Danni	Du	University of Colorado, Boulder	1.4	Assessing the Impact of Ocean In-situ Observations on MJO Propagation across the Maritime Continent in ECMWF Subseasonal Forecasts
David	Ford	Met Office	1.5	Assimilating synthetic Biogeochemical-Argo and ocean colour observations into a global ocean model to inform observing system design
Carine	G. R. Costa	MetOcean Solutions, part of MetService New Zealand	1.6	Improving ocean forecasts with subsurface data assimilation in the northeast shelf of New Zealand
David	Gwyther	University of New South Wales	1.7	OSSEs reveal subsurface temperature observations improve estimates of circulation and heat content in a dynamic WBC
Hyun-Chul	Lee	IMSG at NOAA/NWS/NCEP/EMC, USA	1.8	An Evaluation of Impacts from Ocean Observing Systems in NCEP GODAS in the Tropical Ocean
Elisabeth	REMY	Mercator Ocean International	1.9	Leveraging the multi-system glider data assimilation experiments within EuroSea to the international level
Robert	Weller	Woods Hole Oceanographic Institution	1.10	Ocean Reference Stations: Long-term, open ocean observations of surface meteorology and air-sea fluxes are an essential component of the observing system

Session 2

Louise	Delhaye (on behalf of Matthias Baeye, RBINS)	RBINS	2.1	Acoustic and optical turbidity response to altering particle size distribution during extreme events
Matías	Dinápoli	Centro de Investigaciones del Mar y la Atmosfera (CIMA/CONICET-UBA) - Instituto Franco-Argentino para el Estudio del Clima y sus Impactos (UMI IFAECI/CNRS-CONICET-UBA)	2.2	Improving the short-range forecast of storm surges in the Southern-West Atlantic Continental Shelf using EnSRF data assimilation
Chaimaa	Jamal	Hassan II University of Casablanca, Faculty of Sciences BenSik	2.3	Spatial and temporal variability of the coastal upwelling activity of the Moroccan Atlantic coast, 1994- 2020
Diego	Pereiro	Marine Institute	2.4	An observing and modelling system to monitor and forecast extreme marine events
Oscar	Reyes-Mendoza	CONACyT-ECOSUR	2.5	Marine Heatwaves and Marine Cold-spells on the Yucatan Shelf-break Upwelling region and its relationship with Red tide
Amr	Salama	Department of Physics and Astronomy, University of Bologna, Italy.	2.6	Past and future changes in the Benguela upwelling system with global warming
Claudia G	Simionato	Center for Oceanic and Atmospheric Research and International Research (IRL IFAECI/CNRS-IRD-CONICET-UBA), Buenos Aires, Argentina	2.7	Development and implementation of an operational ocean sea level and waves forecasting system at the Southwestern Atlantic Continental Shelf
Anna	Teruzzi	Istituto Nazionale di Oceanografia e di Geofisica Applicata - OGS, Italy	2.8	Effectiveness of an operational forecasting system to predict anomalous 2022 water formation and intense bloom event in the southeastern Mediterranean Sea

Session 3

Mauro	Cirano	Federal University of Rio de Janeiro (UFRJ/REMO)	3.1	Ocean Forecast and Analysis Systems evaluation based on the NOAA AX97 High-Density XBT transect
Adam	Drozdowski	Fisheries and Oceans Canada	3.2	Progress towards operationalization of six port scale models on the east and west coast of Canada
Flávio	Martins	Centre for Marine and Environmental Research (CIMA), University of Algarve (UAlg)	3.3	Coastal Simulation Experiments Supporting NAUTILOS New Observing Methodologies
Artash	Nath	Founder, Monitor My Ocean	3.4	Monitoring Underwater Anthropogenic Noise Levels in Global Oceans: Using COVID-19 Lockdown as Baseline
Yolanda	Sagarminaga	AZTI	3.5	Tracking HABs' origins in the eastern Cantabrian Sea with coastal models and satellite imagery
Anju	Sathyanarayanan	AWI	3.6	Influence of data assimilation on a biogeochemical ocean model for the North and Baltic Seas
Jozef	Skakala	Plymouth Marine Laboratory	3.7	Introducing ensembles to the biogeochemical component of the operational system for the North-West European Shelf

Session 4

Boyko	Doychinov	Balkan and Black Sea Business Institute within Regional Cluster "North-East"	4.1	Involvement of small-scale fishermen in the process of monitoring and collecting primary data in the coastal waters of the Black Sea
Anna	Katavouta (on behalf of Jo Hopkins, NOC)	National Oceanography Centre, UK	4.2	FLAME: Future Coastal Ocean Climates
Stavriana	Neokleous	University of the Aegean	4.3	Ranking of the coastal areas of Cyprus regarding their vulnerability in pollution episodes using GIS and multiple-criteria analysis.