

# OPERATIONAL OCEANOGRAPHY

## ONLINE WORKSHOP 26-18 MAY 2020

This workshop aims at providing an introductory overview of techniques and products of Operational Ocean Modelling for non-experts in the thematic with the goal of inspire new uses, applications and added value products/services from Marine Data. The workshop may be of interest to IT professionals, marine researchers of any area or operators working in the Blue Economy sectors.

### DAY 1

*Tuesday, May 26, 15:00-17:30 (GMT+1)*

## INTRODUCTION TO OPERATIONAL OCEANOGRAPHY

*Flávio Martins, University of Algarve*  
*Enrique Fanjul, Puertos del Estado*

A general introduction to Operational Oceanography will be presented, including its main components (numerical models and observations networks). The objective is to provide participants with knowledge on basic concepts, frameworks and potential in the context of the Blue Economy of such systems.

*30 minutes break for Q&A*

### DAY 2

*Wednesday, May 27, 15:00-17:00 (GMT+1)*

## COPERNICUS MARINE ENVIRONMENT MONITORING SERVICE (CMEMS)

*Carmelo Sammarco, Mercator Ocean*  
*Corinne Derval, Mercator Ocean*

In this module, the Copernicus Marine Environment Monitoring Service (CMEMS), the European reference service for the dissemination of regular and systematic core reference information on the state of the physical oceans and regional seas, will provide an overview of its service, products and how data can be accessed/visualized.

*30 minutes break for Q&A*

### DAY 3

*Thursday, May 28, 15:00-17:30 (GMT+1)*

## CMEMS DATA USE CASES

*Colombo Sky; Children for the Oceans; Hidromod; MetOcean; SeaPulse*

Several companies and entities from different sectors of the Blue Economy will showcase their services/products powered by CMEMS data.

*30 minutes break for Q&A*

**Register to participate [HERE](#)**

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## ONLINE WORKSHOP

## MEET THE SPEAKERS!



**FLÁVIO MARTINS**

Flávio Martins is Professor Coordenador at the engineering school of University of Algarve. During the last years was Vice-director of the CIMA Research Centre and Vice-rector of the University of Algarve. He develops research in hydrodynamics, water quality and ecological modelling. He has more than 25 years of experience in research and consultant activities. Has been involved and coordinating more than 10 international projects. The focus of his research is on Mathematical Modelling. Main topics are: hydrodynamics of estuarine, coastal and oceanic regions, water pollution, water quality, climate change and sediment transport among others.



**CARMELO SAMMARCO**

Since September 2018, I am part of the Copernicus marine environment monitoring service. To be more precise, I am working for the Service-Desk (SD) which is responsible of dealing with both first-level user support (initial contact with the users), second-level user support (advanced user support which solve/answer more technical and specific issues/questions) and internal CMEMS issues. My main responsibilities in both the first and second level user support consist in managing, reports and follow up incidents, contributing to the base knowledge with technical documentations, tutorials, training materials, data analysis procedures and reports. Furthermore, I also have tasks as python tools developer (mainly for automatic data processing and downloads tools) and as additional service, on user request, I do also data analysis and product download customizations.



**CORINNE DERVAL**

I am Corinne Derval, I am working at Mercator Ocean since 20-year at the beginning involved in global ocean forecasting system development, I am now in charge of the Copernicus Marine service catalogue as « Product Manager ». Main objective is to verify integrity of the CMEMS catalogue and to contribute to definition of evolution of the products. I am particularly involved in the CMEMS reviews, working with all the producers from TACs and MFCs. I am also involved in H2020 KEPLER where new products and links with end users in Polar areas are defined.



**THOMAS MORANDUZZO**

Thomas Moranduzzo is a senior software engineer with experience in the development of software for the analysis and the processing of different remote sensing data ranging from satellite imagery to Unmanned Aerial Vehicles (UAV) data. In 2015, he received his Ph.D. degree from the University of Trento, Italy. With ColomboSky, where he is the COO, he drives the internal processes and technological development and led the development of AquaX and JellyX.

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## MEET THE SPEAKERS!



**ENRIQUE FANJUL**

Head of the Physical Oceanography Division (named "Área de Medio Físico") at Puertos del Estado. Amongst others activities, the Área de Medio Físico team (20 persons) is responsible for, national numerical forecast systems of waves, storm surges and currents, a network of 15 deep water complex oceanographic buoys measuring waves, winds, atmospheric pressure, currents, air temperature, salinity and SST, a network of 10 simple oceanographic buoys for measurement of waves, a network of 39 tide gauges, a database and an information distribution system for disseminating the related products to society. Puertos del Estado is member of Eurogoos, IBIROOS, MonGOOS and several other organizations related to monitoring and forecasting the ocean environment.



**ADÉLIO SILVA**

Adélio Silva has a Civil Engineering degree from the Technical University of Lisbon and the Ph.D. degree from the same Institution. He has about 30-year experience in information technologies and in developing and applying models to a wide range of problems, such as urban hydraulics, hydrodynamics, sediment transport and water quality issues (fresh and salt-water environments) and wave generation and propagation. Since the conclusion of his Ph.D., he is working in full time in the HIDROMOD (from which he is manager) which activity is focussed in the development and application of technical software in areas related with fluid mechanics. Along the last 10 years he has also gained a relevant experience in implementing operational systems and integrating real time acquired data with modelling tools from which resulted a new HIDROMOD's business area focused in operational services.



**JOÃO JANEIRO**

Bsc. in Oceanography in 2004 and MSc. Water and Coastal Management in 2006. He worked as a modeller in the Scottish Environmental Protection Agency for two years and in 2009 started his PhD in Marine Sciences specialization in Numerical Modelling with the thesis: Development of an operation tool for oil spill forecast: Application to oil exposed regions. He was a Graduate student in Duke University (US) Integrated Marine Conservation Program, trainee in NOAA Coastal Services Centre and member of the modelling team of the ARGOMARINE FP7 project. In recent years he was part of the WP8 -Societal benefits from observing/information systems - of H2020 project AtlantOS and he currently develops research work at University of Algarve in the field of Operational Oceanography in the scope of projects OCASO and BASIC.



**AITANA FORCÉN-VAZQUEZ**

With close to a decade of professional experience, Aitana is a physical oceanographer with extensive experience in operations at sea. Originally from Spain, Aitana has a PhD in physical oceanography from Victoria University and postdoctoral experience with Southern Ocean dynamics. At MetOcean Solutions, Aitana advises clients to ensure optimal operation of weather guidance and acts as a client advocate during the development of services. She helps clients to understand the science behind the forecasts in order to manage their expectations of what the results provide. She is also involved in the development of the data delivery systems.