Agenda:

15.00 - 15.05 Welcoming by Cristina González Haro (ICM-CSIC, Teledetect, GHRSST, ICATMAR)

15.05 - 15.15 *ESA Earth Observation for Ocean Sciences and Climate* by Roberto Sabia (European Space Agency - ESA)

15.15 - 15.25 *Complementarity of ocean observations (in situ) for monitoring the ocean from the ocean* by Chiara Bearzotti (OCEAN:ICE, DMI)

15.25 - 15.35 *Improving the predictability of climate tipping points, ENSO prediction and disease models with an enhanced ocean-observing system* by Xavier Rodo (ISGlobal)

15.35 - 15.45 *How can supercomputers aid in modeling and what are the current and future challenges of HPC for weather, ocean, and climate, supported by ESiWACE?*
by Mario Acosta (Barcelona Supercomputing Center - BSC)

15.45 - 15.55 *Monitoring the ocean, a regional perspective from Catalonia*
by Jordi Isern Fontanet (ICM-CSIC, ICATMAR)

15.55 - 16.05 *From Climate Science to Decision-making: how policymakers and final users can benefit from research outcomes* by Ana Oliveira (Atlantic Colab, GHRSST)

16.05 - 16.30 - Discussion

Meet the panelists

Cristina González Haro has a multi-disciplinary background having studied Electronic and Telecommunications Engineering BsC, having specialized in remote sensing of the ocean during her MSc and acquiring fundamental understanding of physical oceanography during her PhD. She is currently a contracted researcher at the Institut de Ciències del Mar (ICM-CSIC) in the Barcelona Expert Center (BEC) group. Her research activity is centered in Ocean Remote Sensing, with special emphasis in the exploitation of remote sensing data to study and investigate the dynamics of the ocean's upper layers. She is a science team member of the Group for High Resolution Sea Surface Temperature (GHRSST) and was co-chair of the task team on Feature Fidelity (F2T2) from 2021-2023.

Roberto Sabia graduated cum laude in Environmental Sciences, curriculum in Oceanography, at Universitá Parthenope in Napoli, Italy (2002), and obtained the Ph.D. cum laude in Signal Theory and Communication at Universitat Politecnica de Catalunya (UPC) in Barcelona, Spain (2008), with a Thesis on the ocean salinity retrieval applied to the ESA Soil Moisture and Ocean Salinity (SMOS) mission.
In 2006, he was visiting Ph.D. student at NOC, Southampton, UK.
From 2010 to 2013, he was an ESA post-doc Research Fellow at ESA-ESRIN, Frascati, Italy. In 2013, he was with Telespazio-UK Ltd. seconded at ESA-ESTEC, Noordwijk, the Netherlands, and since 2015 at ESA-ESRIN, Frascati, Italy, with coordination responsibilities on several oceanographic projects.In 2023, he has been appointed Earth Observation Ocean Scientist at ESA-ESRIN, Frascati, Italy.
In 2008, he was the recipient of the best Ph.D. award in Remote Sensing of the European IEEE GRS Society. In 2010, he has led a European COST Action proposal titled “SMOS Mission Oceanographic Data Exploitation (SMOS-MODE)”, successfully funded for the period 2011-2015. In 2018 he obtained the APM Project Management Qualification (PMQ). His research interests are within the ocean remote sensing and climate change domains - specifically on ocean salinity, carbon cycle and ocean acidification.

Xavier Rodó ICREA Research Professor and Head of the CLIMA (Climate & Health Group, ISGlobal, ORCID ID: 0000-0003-4843-6180). Founding director of the IC3 climate institute and former head of the LRC-PCB. UVIC Associate Prof. on Climate Change and Health. MSc in engineering, completed his PhD in 1997 (UB) on the simulation of extreme ecosystems under climate forcing. Visiting fellow at Princeton and UCSD, and COLA-IGES associated scientist. Background in numerical ecology, climate dynamics and climate impact modelling. Taught ecology, advanced statistics, climate dynamics and sustainability and led/ participated in >50 research projects. Co-chair of CLIVAR-Spain (-2007), SSC of the MEDCLIVAR-ESF, CA and ER of the AR4-WGII and ER of AR6 (IPCC2007, 2021). SCM of the DIG of the World Climate Research Program and of the ISIMIP Health Impact Models group. EBM for PLoS NTD, PLoS Climate and of the OPCC-Pyrenees. TT member of the WMO climate & COVID-19 Expert group. Expert Group member for Health & Climate for the Union of the Mediterranean. His research entails with the interplay between climate and health, where he attempts to uncover how climate impacts a wide range of diseases. He also work on climate dynamics, particularly the origin and predictability of El Niño and towards improving translational climate services for health, in particular for climate extremes. He is interested in the development of new statistical techniques and on improving computational models with different levels of complexity, to disentangle the interplay between intrinsic (e.g. immunity, demography, malnutrition) and extrinsic factors (e.g. climate, environment) in climate-driven infectious diseases. He also partner the TipESM EU project on climate tipping points of the Earth System.

Mario Acosta brings in his strong background on High Performance Computing (HPC) applied to Earth System Models. He has wide experience in how to adapt climate models using novel approaches to efficiently use HPC resources, leading initiatives, projects or contracts which aimed to improve the computational performance of the climate models usch as EC-Earth to efficiently exploit pre-exascale machines. At present, he is co-leading the Computational Earth Sciences (CES) group at Earth Sciences Department (BSC) with more than 60 researchers and engineers. He leads and contributes to a variety of European and national projects. He is the coordinator of the HorizonE Centre of Excellence in Simulation of Weather and Climate in Europe (ESiWACE3), which pursues exascale excellency in weather and climate simulations. He is also one of the WP leaders in the Climate-DT project, managing the computational performance and optimization activities of the project. He has also an involvement in the EDITO project, leading tasks for profiling and HPC improvement of the ocean model NEMO.

Jordi Isern-Fontanet. Senior researcher at ICM-CSIC. Head of Operational Oceanography, Institut Català de Recerca per a la Governança del Mar (ICATMAR). His main interests are the understanding of ocean turbulence and its role in Earth's climate, with particular attention to the upper layers of the ocean between sub-mesoscales and mesoscales. His research combines theoretical developments with the analysis of ocean numerical models and ocean observations, such satellite data.

Ana Oliveira is an earth observation (EO) researcher specializing in Machine Learning (ML)-based applications for climate change hazard mapping and impact assessment. She has a PhD degree from the MIT Portugal Program where she studied the interaction between air temperatures and the territory, including the influence of regional wind flows, considering several coastal cities from southern Europe. In her PhD, she developed empirical models to estimate the atmospheric canopy layer and the land surface urban heat island (UHI) intensities in two Mediterranean cities, by using open science methods, EO and climate data. At +ATLANTIC she has been working on climate applications focusing on atmospheric and ocean heatwaves, being the technical lead in several activities, including European Space Agency (ESA) projects (CareHEAT and MiTHo, focusing on Marine Heat Waves (MHWs) impacts on aquaculture), Copernicus Climate Change Service (C3S) projects (Evaluation and Quality Control Function, focusing on EO/land and in-situ/ atmospheric data products) and Horizon Europe projects (ObsSea4Clim, focusing on advancing EOVs frameworks for MHWs). She is science team member of GHRSST since 2023.

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