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A COST workshop on the use of models, reanalyses and observations to assess the health of the ocean environment

Date: 17 March 2017 Place:

Morning Session (9.00-12.00): Aquapôle (B53), University of Liege, Sart Tilman campus, 4000 Liege, Belgium.

Lunch (13.00-14.00): Galerie des Arts, Bâtiment B7b, Campus du Sart-Tilman, ULg Afternoon session (14.00-17.30): Room A3, Galerie des Arts, Bâtiment B7b, Sart-Tilman, ULg. Invited Conference by Professor Nadia Pinardi: "Ocean forecasting: from descriptive to quantitative science". 18.00 - 20.00, Amphithéâtre de l'Europe, Room 304.

Monitoring and forecasting the ocean synoptically in space and time is an increasingly important challenge faced by oceanographers. These last decades, the marine environment has been threatened by many anthropogenic pressures (e.g. pollution, intensive fishing and aquaculture, coastal erosion and dredging activities, ocean energy, touristic exploitation, oil spill), combined with climate change, that have now put at risk the integrity and the Good Environmental Status (GES) of our seas as well as their capacity to sustain blue growth. The protection, environmental and economical sustainable exploitation of the marine environment further calls for increased surveillance of the oceans and the development of advanced predictive tools.

These recent years a new paradigm in ocean observations emerges with the advent of networked robotic platforms such as autonomous underwater vehicles, floaters, drifters providing a wealth of information that needs to be digested, interpreted and integrated in modelling and data analysis tools. On the other hand, satellites have become an indispensable component of ocean surveillance given their capability to monitor on regional and global scales. An explosive growth of small satellites is expected to occur with very promising perspectives especially for the monitoring of the coastal ocean. In parallel, our ocean modeling capabilities have been boosted and improved thanks to this new information and computing resources.

The Marine Copernicus (CMEMS) program offers an operational monitoring of the ocean and provides ocean products available in open access to a wide community of end-users. In particular, ocean syntheses give short-term operational oceanographic forecasts for maritime use in fisheries, oil and gas, wind farms, offshore construction and defense applications, or for longer range seasonal to decadal coupled weather forecasting activities.

This workshop addresses the new challenges that oceanographers face concerning the development of new approaches to answer environmental challenges and for instance to track in near real time environmental issues, to improve the quality of ocean products, to deliver a targeted and accessible information that answers the expectations of end users, to provide sound recommendations for the blue growth exploitation of our seas.

No registration fee, participation must be confirmed to <u>a.alvera@ulg.ac.be</u> Abstracts to be sent to <u>a.alvera@ulg.ac.be</u>

Organizers

Marilaure Grégoire (MAST, University of Liege, Belgium) Aida Alvera-Azcárate (GHER, University of Liege, Belgium)

Confirmed speakers

Nadia Pinardi (SINCEM, University of Bologna, Italy) Marie Drevillon / Karina von Schukmann (CMEMS, France) Geneviève Lacroix (RBINS, Belgium) Emil Stanev (HZG, Germany) Eric Deleersnijder (ULC, Belgium) Simo Siiriä (FMI, Finland) Morgane Roth (PWC, Belgium) Estrella Olmedo (SMOS-BEC, Spain) Davi Mignac (U. of Reading, UK) Emmanuel Hanert (UCL, Belgium) Natalie Gypens (ULB, Belgium) Karline Soetaert (U. Ghent)