



Modelling the Mediterranean circulation: skills and flaws of present day models

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The modelling of Mediterranean circulation is of paramount importance to understand the functioning and variability of the Mediterranean system. The advection and mixing of physical and biogeochemical properties is determined by the circulation patterns and their variability. Unfortunately the observations of water circulation are limited in space and/or time, so numerical modelling is required to complement them. At present, lots of efforts are being devoted to the implementation of circulation models at basin and sub-basin scale, with spatial resolution ranging from 1 to 10 km and covering from few years to multidecadal periods. However, a complete assessment of the skills and flaws of those models has not been done yet. In this presentation we will show a comparison of different types of simulations (basin climate models, sub-basin high resolution models and reanalyses) with observations from different platforms (moored current meters, altimetry and HF radar). The goal is to assess up to which extent the present day models are able to reproduce the main circulation patterns, their variability and the mesoscale and submesoscale fields.