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Multi-analysis ensemble of weather and wave models for applications in weather routing, developed in the frame of NETMARIMED project

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Modern weather-routing techniques, i.e. optimization of ship routes according to weather conditions, have a great potential for Mediterranean navigation. Such techniques can contribute to reduce oil consumption, increase punctuality in marine connections, reduce risks of crossing dangerous seas with adverse weather conditions and increase comfort of passengers. INTERREG project NETMARIMED, conducted in 2008, aimed at addressing these issues/techniques.

In the frame of this work, a multi-analysis ensemble of weather (BOLAM) and wave (WAM) models has been applied, in order to investigate the added-value of probabilistic meteo-marine forecasts and associated cost-function calculations, for the optimization of weather routing in medium-range ship tracks in the Central and Eastern Mediterranean. The work is focused on an example of a high-impact weather event associated with high winds over the sea that occurred in November 2008.