

Wave modeling Catalan coast: an intercomparison

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Wave modeling is well established and forecasts have become very reliable. However detailed wave modeling in coastal areas is still very difficult. Land and local orography affect the wind fields and therefore affect local wave growth. For waves approaching the shore the bottom effects become important and may dominate the local wave energy processes.

In the framework of the FP7 project FIELD_AC an intensive measurement campaign was carried out in front of the Catalan coast and several project partners used their model set-up to hindcast the wave conditions. The model results deviated considerably more than expected from the measurements and from each other.

In this study, one wave model set-up is used to systematically investigate possible sources of differences. To this end the different bathymetries, the different wind field and the different boundary conditions from the original intercomparison exercise are being used. Some first results of this investigation will be shown.