



Extreme sea storm in the Mediterranean Sea. Trends during the 2nd half of the 20th century.

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The analysis of extreme Significant Wave Height (SWH) values and their trend is crucial for planning and managing coastal defences and off-shore activities. The analysis provided by this study covers a 44-year long period (1958-2001). First the WW3 (Wave Watch 3) model forced with the REMO-Hipocas regional model wind fields has been used for the hindcast of extreme SWH values over the Mediterranean basin with a 0.25 deg lat-lon resolution. Subsequently, the model results have been processed with an ad hoc software to detect storms. GEV analysis has been performed and a set of indicators for extreme SWH have been computed, using the Mann Kendall test for assessing statistical significance of trends for different parameter such as the number of extreme events, their duration and their intensity.

Results suggest a transition towards weaker extremes and a milder climate over most of the Mediterranean Sea.