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Statistical study of extreme waves in eastern Mediterranean Sea for a 30-year historical period with the wave model WAM

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Wind and wavestorms play a very important role in the economy and social life of the areas affected. Extreme winds and waves may cause loss of properties, infrastructures and even human lives. Studying such weather events is a step towards protecting from and mitigating their impacts. Detailed knowledge of the severity, location and frequency of Windstorms and how they drive strong winds and extreme waves is the reason for creating a detailed database for the Eastern Mediterranean Sea area by using downscaled atmospheric input from the high-resolution WRF-ARW atmospheric model coupled to the WAM wave model. The first results from the analysis of trends and climate variations of extreme wave values for a 30-year period will be presented. The use of high horizontal resolution (0.05 degrees) will help towards this scope.