



## Supplement of

## Ocean wave spectrum bias correction through energy conservation for climate change impacts

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Figure S1. Spring (March, April and May) mean of the wave spectrum monthly means for the hindcast and RMSE between GCM-RCMs and hindcast for the baseline period (1979 - 2005) and different locations in the Mediterranean Sea. For each location: spring mean of the hindcast wave spectrum monthly means for the baseline period (left), RMSE between the raw (middle) and bias-adjusted (right) GCM-RCM and hindcast. 2



Figure S2. Summer (June, July and August) mean of the wave spectrum monthly means for the hindcast and RMSE between GCM-RCMs and hindcast for the baseline period (1979 - 2005) and different locations in the Mediterranean Sea. For each location: summer mean of the hindcast wave spectrum monthly means for the baseline period (left), RMSE between the raw (middle) and bias-adjusted (right) GCM-RCM and hindcast. 3



**Figure S3.** Fall (September, October and November) mean of the wave spectrum monthly means for the hindcast and RMSE between GCM-RCMs and hindcast for the baseline period (1979 – 2005) and different locations in the Mediterranean Sea. For each location: fall mean of the hindcast wave spectrum monthly means for the baseline period (left), RMSE between the raw (middle) and bias-adjusted (right) GCM-RCM and hindcast.



**Figure S4.** Winter mean of the hindcast wave spectrum monthly means, ensemble mean for baseline conditions, changes between the multi-model bias-adjusted ensemble mean with respect to baseline period for mid-century (2034 - 2060) and end-of-century (2074 - 2100) conditions, for all the analyzed locations in the Mediterranean Sea.



**Figure S5.** Summer mean of the hindcast wave spectrum monthly means, ensemble mean for baseline conditions, changes between the multi-model bias-adjusted ensemble mean with respect to baseline period for mid-century (2034 - 2060) and end-of-century (2074 - 2100) conditions, for all the analyzed locations in the Mediterranean Sea.



**Figure S6.** Fall mean of the hindcast wave spectrum monthly means, ensemble mean for baseline conditions, changes between the multimodel bias-adjusted ensemble mean with respect to baseline period for mid-century (2034 - 2060) and end-of-century (2074 - 2100) conditions, for all the analyzed locations in the Mediterranean Sea.



**Figure S7.** Winter maxima of the hindcast wave spectrum monthly means, ensemble mean for baseline conditions, changes between the multi-model bias-adjusted ensemble mean with respect to baseline period for mid-century (2034 - 2060) and end-of-century (2074 - 2100) conditions, for all the analyzed locations in the Mediterranean Sea.



**Figure S8.** Summer maxima of the hindcast wave spectrum monthly means, ensemble mean for baseline conditions, changes between the multi-model bias-adjusted ensemble mean with respect to baseline period for mid-century (2034 - 2060) and end-of-century (2074 - 2100) conditions, for all the analyzed locations in the Mediterranean Sea.



**Figure S9.** Fall maxima of the hindcast wave spectrum monthly means, ensemble mean for baseline conditions, changes between the multimodel bias-adjusted ensemble mean with respect to baseline period for mid-century (2034 - 2060) and end-of-century (2074 - 2100) conditions, for all the analyzed locations in the Mediterranean Sea.