



Centro de Engenharia e Tecnologia Naval

Seminário

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**Statistics of wind speed and
power determined from
Remotely Sensed
Observations**

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Abstract:

Several national, European, and international projects are currently dealing with the operational productions of marine energy such as current, tidal, waves, thermal, and wind energies. In this study we examine the potential of marine wind, derived from satellite scatterometer observations, to be used for the characterisation of wind power over the Mediterranean sea. Indeed, only such radars onboard satellites provide valuable information on wind speed and direction with sufficient spatial and temporal sampling under all weather conditions and during days and nights.

Twenty years of remotely sensed data retrieved from scatterometers on-board satellites and operating from 1992 through 2011 are used to estimate the conventional moments and the associated wind distribution parameters. The statistical results are used to investigate the wind power distributions. The latter meet the previous results obtained from numerical models. However, they exhibit higher space and time resolutions and amplitudes.