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Eight years of Wind Measurements from Scatterometer for Wind Resource Mapping in the Mediterranean Sea

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Eight years of wind observations from the SeaWinds scatterometer instrument on the National Aeronautics and Space Administration (NASA) QuikSCAT satellite and in situ data from 11 locations in the Mediterranean have been considered. The data has been co-located in time and space and it is shown that the scatterometer is able to provide similar long term statistics as available from buoy data, such as annual and monthly wind indexes. Such statistics are useful to give an overview of the climatology in the different areas. The correlation between QuikScat and in situ observations is degraded towards the coast giving indication of how well the scatterometer can represent the coastal winds. The degradation is stronger in areas with strong spatial variability. The QuikScat winds are gridded into a 0.25 degree by 0.25 degree grid to produce seasonal and annual means of the offshore wind conditions over the Mediterranean.