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Seasonal wind variability in South Italy by comparing Synthetic Aperture Radar (SAR) and ground base stations and a correlation with NAO North Atlantic Oscillation Index.

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This study focus about the seasonal wind variability, especially during the winter season, in South Italy. Wind climate for the coastal waters off South Italy were made based on images from March 2002 to April 2012 of the Advanced Synthetic Aperture Radar (ASAR) onboard the ENVISAT satellite. The high spatial resolution of the gridded SAR data is particularly relevant to study coastal sites, where most part of human activities are located. Climatological index were analyzed for chosen sites: the monthly, annual and seasonal wind indices were calculated at each site from both the SAR and from in situ data.
The NAO index correlates the pressures of the North Atlantic and those of the central Atlantic represented by the difference of the values of the detected pressure on a particular area of the Azores with that of a certain area of Iceland. If the NAO index is negative, <= 0.5 are more frequent actions blockers in Atlantic resulting split meridian polar jet in the Mediterranean area.
Estimating wind indices minimizes biases and makes it possible to compare the year-to-year variability or the seasonal cycle as observed by the different data sets, also when two time series have a different wind speed range.

Keywords: Wind Climatology, Teleconection index, NAO index, ENVISAT satellite (SAR)