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# Spatial overlapping areas of four teleconection indices in Mediterranean façade of Spain.

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We have analysed the correlation between November to February monthly precipitation and four teleconnection indices (NAOI, MOI, MCI and WeMOI) in Mediterranean façade of Spain. The database has monthly, homogeneous and complete series over 1100 meteorological stations (for the period 1951-2000), throughout an area which is circa 1/3 of the Iberian Peninsula (IP). This dataset has been set up exploiting as much as possible the National Meteorological Agency of Spain archive for this subregion of IP. The NAOI and MOI series were obtained from CRU web site, MCI series from Brunetti et al. (2002, *Int. Jr. Climatol.* 22, 1455-1471), and WeMOI from Martín-Vide and López-Bustins (2006, *Int. Jr. Climatol.* 26, 1455-1475).

In the Spanish Mediterranean façade MOI is the most prominent teleconnection index and correlates significantly with precipitation for the whole region. The WeMOI is dominant along the east coastland (negative correlation) and the most NW area (positively correlation), whereas MCI influences the area between MOI and WeMOI (NW) ones. The regions well correlated with the different indices overlap in well identified areas in the Ebro basin (north), and SE coastland defining subregional climatic ecotones. Monthly analysis allows to recognize some spatial shifts of these areas. The lower correlation (although significant) between NAOI and precipitation suggests that MO explains better than NAO November-February precipitation in eastern IP.