



ENSO-related quadriennial variations in European rainfall

Francisco Alvarez-Garcia, Pilar M. Lorente-Lorente, Maria J. OrtizBevia, and William D. CabosNarvaez
University of Alcalá, Department of Physics, Alcalá de Henares, Spain (franciscoj.alvarez@uah.es, +34 91 885-4942)

Precipitation over Europe displays pronounced spectral peaks at quadriennial timescales. Part of this variability is shown here to be connected with the El Niño - Southern Oscillation (ENSO). The characteristic pattern of precipitation anomalies, lagging the tropical Pacific sea surface temperature (SST) by about 6 months, consists of a wide band of anomalies of one sign across most of the European mainland and in the British Isles, and opposite sign anomalies in narrower fringes along the Norwegian coasts and the Mediterranean areas. The associated sea level pressure (SLP) pattern features an anomalous low (high) over Scandinavia linked to wetter (drier) conditions in the wider, central band mentioned above. Our results, primarily obtained via linear regression analysis, are discussed in the light of previous studies concerning the impacts of ENSO on European climate.