Geophysical Research Abstracts
Vol. 12, EGU2010-6663-1, 2010
EGU General Assembly 2010

The observed summer western Mediterranean variability and its feedbacks

Maria OrtizBevia, Francisco J. Alvarez-Garcia, and Pilar Lorente
Universidad de Alcala, Fisica, Edificio Ciencias, Fisica del Clima, Alcala de Henares, Spain (mjose.ortiz@uah.es)

We study here the observed western Mediterranean variability in summer, its relationships with the large scale modes of climate variability and its feedbacks.
At this season, the most important feature in the western Mediterranean interannual variability are the recurrent warm and cold episodes at roughly four-five years interval. We find that the western Mediterranean events are part of a basin scale mode, with a dipole like spatial pattern between the eastern and the western Mediterranean, that is known as the Mediterranean Oscillation (Suselj and Bergant 2005). This variability is mainly forced by the atmospheric fluxes of the previous spring. In turn, these warmings and coolings influence the state of the North Atlantic in summer and at the following season. The feedbacks relationships are identified and explored with the help of statistical tools applied first to relevant climatic indices, and then to oceanic (SST) and atmospheric (SLP, precipitations) of seasonal anomalies in the North Atlantic.