



Comparison of modeled and observed temperature and precipitation extremes around the Mediterranean

K. Goubanova, L. Li

Laboratoire de Météorologie Dynamique, IPSL/CNRS, Paris, France
(goubanova@lmd.jussieu.fr)

There is generally agreement that impacts of climate changes on ecosystem and society are likely to results rather from changes in climate variability and extremes than from changes in mean climate. Many recent studies found significant potential future changes in extremes over the Mediterranean and Europe using different climate models.

The ability of a variable-grid atmospheric general circulation model, the LMDZ, with a local zoom over the Mediterranean to simulate extremes of near surface climate is examined. Statistical characteristics of extremes are analysed with focus on minimum and maximum temperature and precipitation. Extremes are expressed in terms of 30-year return values estimated from Generalized Extremes Value distribution.

The model are validated against the National Centers of Environmental Prediction and the European Center for Medium Range Forecasts reanalyses datasets and station data for the period 1970-1999.