EMS Annual Meeting Abstracts,
Vol. 6, EMS2009-165, 2009
9th EMS / 9th ECAM

9th EMS Annual Meeting
9th European Conference on Applications of Meteorology
High resolution meteorology
- applications and services

On the characteristics of daily precipitation in the Mediterranean region

W. May
Danish Meteorological Institute, Danish Climate Centre, Copenhagen, Denmark (wm@dmi.dk)

In this study the characteristics of daily precipitation events in the Mediterranean region is investigated. This is done on the basis of the ENSEMBLES observational data of daily precipitation, interpolated to a 50 $\times$50 km grid, over the period 1950-2006. Furthermore, the results based on the observational data will be compared to simulations of daily precipitation in the Mediterranean region for this period. These simulations originate from high-resolution global coupled climate models especially designed within the CIRCE-project, with a high-resolution model of the Mediterranean Sea included. Daily precipitation events are characterized by their frequency and intensity, and heavy precipitation events are described by 30-year return levels of daily precipitation. Further, extended periods with and without rainfall, the so-called wet and dry spells, are studied, considering frequency, duration and extreme amounts of precipitation associated with wet spells, again described by 30-year return levels.