



Numerical study of two convective lines observed during HyMeX

A. Hally and E. Richard

CNRS / Université de Toulouse, Laboratoire d'Aérologie, Toulouse, France (rice@aero.obs-mip.fr)

The first Special Observing Period (SOP 1) of the Hydrological Mediterranean Experiment (HyMeX) recently took place in the northwestern Mediterranean area. The HyMeX SOP 1 was devoted to the observations of the meteorological and oceanic conditions that prevail before and during strong precipitation events. On the 24th and 26th of September, in relation with the passage of an elongated through, two convective lines crossed the Cevennes region and produced rain fall amounts close to 100 mm in 6 hours.

The presentation will focus on the numerical results obtained for these two cases with the Meso-NH model run with a 2.5 km resolution. In particular, the sensitivity of the model results to initial and forcing conditions (ARPEGE, ECMWF, AROME-WMED analyses/forecasts), and to physical parameterizations (cloud physics, turbulence scheme) will be investigated.