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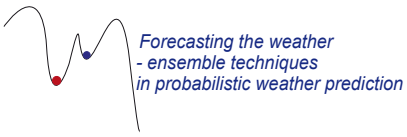

Ensemble Forecasts for an Extreme Rainfall Event in Southern France 15-16 June 2010

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On the 15th and 16th of June 2010, a severe rainfall event caused 20 deaths and a large amount of destruction in SE France, and localised flooding and landslides in NW Italy. Regional ensemble forecasts are designed to aid forecasters in assessing risks associated with severe, high impact weather, and this poster examines the performance of three leading European regional ensemble prediction systems (MOGREPS of UK Met Office, PEARP of Meteo-France and COSMO-LEPS of the COSMO Consortium led by ARPA-SIMC in Bologna, Italy) for this event. Performance is also compared with the ECMWF high-resolution global ensemble. All four systems successfully highlighted a risk of heavy precipitation in the two correct regions, with the highest probabilities for over 100mm/24h in the Torino region of Italy. The case illustrates that ensemble forecasts can provide valuable guidance on some very extreme rainfall events and pinpoint the areas at risk with several days notice. High model resolution is important for regional detail but cannot be relied on at the grid-scale. All these ensembles used parameterised convection, and this illustrates that for dynamically-forced convection this does not prevent the prediction of extreme rainfall amounts.