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ASSIMILATION OF WEATHER RADAR OBSERVATIONS AT THE UK MET OFFICE

par David SIMONIN

(UK Met Office)

en salle Joël Noilhan

Résumé:

There is an increasing demand for high resolution weather prediction, and for the UK there is an emphasis on accurate forecasts/nowcasts of strong convective storms, which can be responsible for major flooding events. In response, the Met Office has introduced a numerical weather prediction system using a 1.5km version of the Unified Model. Such a system requires the assimilation of new high temporal and spatial resolution observations in order to produce an initial state that contains information at suitable scales.

The advantages of high density and wide coverage make radar observations a very attractive candidate for high resolution NWP. However, this presents associated challenges arising from the same attributes, with particular reference to observation error correlation and quality control. This talk will present recent Met Office efforts as well as remaining challenges to assimilate radar products within our operational 1.5km version of the Unified Model. This will include preliminary results from collaboration on the use of correlated observation error.