Predictability of mesoscale features in MOGREPS

Thomas Frame (1), John Methven (2), and Nigel Roberts (3)

(1) NCAS weather, University of Reading, Reading, United Kingdom (T.H.A.Frame@Reading.ac.uk), (2) University of Reading, Reading, United Kingdom, (3) Met Office

DIAMET is major UK research project, investigating the impact of diabatically generated mesoscale structure on the evolution and predictability of extra-tropical cyclones. Here we present results from the predictability component of the project, examining the predictability of tracked mesoscale features in the Met Office MOGREPS global ensemble forecasting system. The relationship between the predictability of frontal waves and rainfall and how this feeds through to dynamically downscaled local area ensembles is examined, with a view to informing the design of the downscaled forecast ensembles.