



On the use of operationally synthesized multiple-Doppler wind fields for model verification

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Thanks to the recent deployment of a new multiple-PRF scheme within the French operational radar network it has become possible to exploit Doppler radar data collected at long range to produce real time multiple-Doppler winds over large areas in a fully automated way. The resulting 3D wind fields, which allow to continuously map the dynamic structure of rain events at multiple scales, are being archived to build a weather database since November 2006. Information inferred from this database represent unprecedented datasets for statistical analysis and model verification purposes, especially now that many meteorological centres are developing new high resolution (~ 2.5 km), limited area, operational models that require large amounts of data for validation. This study aims at illustrating the potential of such information for model verification using forecasts from Météo France's new high resolution (2.5 km) model for short term forecasting AROME performed during 2007 fall and winter seasons.