

Examination of forecast errors at convective scale and the impact of assimilating radar observations

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Abstract

Radar data has been assimilated to improve the quantitative precipitation forecast at the convective scale, and many studies have shown the positive impact of it. This study examines the short-term forecast error at convective scale and explains the impact of assimilating radial wind and reflectivity in the EnKF system. In addition, by providing additional observations such as temperature and humidity measurement, we investigate the possibility of reducing the frequency of cycling process.

Key words: radar data assimilation, short-term forecast error, EnKF