

Convective Scale Data Assimilation using Doppler Radar Observations and Ensemble Kalman Filter

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The Ensemble Kalman Filter (EnKF) method is utilized to perform convective scale data assimilation using Doppler radar-observed radial winds and reflectivity. The OSSE-type numerical tests are conducted over an idealized terrain with a north-south elongated mountain. Our experimental designs particularly focus on investigating the issues of quantitative precipitation forecast (QPF), and the impact of the blockage of the radar beams by the terrain on the model assimilation/forecasts products. Some preliminary results will be presented.