



Evaluation of precipitation from numerical weather prediction models, radars and satellites

C. Lin, S. Vaisc, I. Zawadzki

McGill University, Quebec, Canada (charles.lin@mcgill.ca / Fax: +514 398-6115 / Phone: +514 398-6079)

We compare quantitatively precipitation from numerical weather prediction models, radars and satellites. The models are tested over the continental US. Conventional statistical skill measures (probability of detection, false alarm rate, critical success index) as well as scale decomposition methods using wavelet analysis and frequency analysis are used. The precipitation data are obtained from two Canadian and US operational models, and from the composite radar network and GOES satellite. Two analyses have been performed: the first using 21 days of precipitation data during the summer and fall of 2003-04 over a $2,160 \text{ km} \times 2,160 \text{ km}$ domain in the central and eastern US, and the second analysis uses 35 days of data over the entire continental US for the summer and fall of 2004. In addition to evaluating the conventional skill scores, we also consider the scaling properties in the spectral and frequency domain.