

Warm-Season Precipitation Spectra over North America:
A Comparison between Radar Observations and WRF Forecasts

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Rainfall time series and spatial distributions derived from composites of the NEXRAD observations over North America during the summer 2003 are analyzed using spectral decompositions. Both temporal and spatial spectra exhibit spectral peaks and power-law scaling. These are the natural characteristics of summertime convective events. During the same time, experimental WRF 36-hour forecasts were conducted at a resolution of 4 km every day to support the 2003 BAMEX field program. The rainfall fields of these forecasts are also decomposed spectrally. In this presentation, both precipitation spectra from observations and forecasts are described and compared.