



Case studies of small-scale convective rainfall variability. Comparison of radar reflectivity measurements and ground observations from fast-response rain-gauge network.

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The data from radar reflectivity measurements at 1km constant altitude level (CAPPI) with temporal resolution of 15 minutes, collected in the course of intensive convective rainfall events, are compared to surface rainfall observations. Surface precipitation was measured on network of 25 fast-response (with a temporal resolution of 1 min) weighing-type rain-gauges located in Warsaw, Poland. The geographical coordinates of point measurements were converted in such a way that both data sets are available on a common grid. The typical distance between rain-gauges is close to the resolution of the radar data. To each single gauge point observations the nearest radar pixel was selected. Different aspects of statistical analysis are carried out using these two data sets. Statistical analysis of spatial data, mainly on the analysis of spatial patterns of points in two-dimensional space will be presented together with analysis of temporal characteristics of precipitation events.