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## A high-resolution observational data set of precipitation in Germany and its use for QPF verification

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The verification of precipitation forecasts from numerical models is essential for the future improvement of quantitative precipitation forecasts (QPF). The advent of operational high-resolution mesoscale model predictions (time scale 1 hour, spatial scale below 10 km) prompts to design novel verification techniques which require highresolution observational data sets. This study introduces such a data set for Germany, based upon observations from the rain-gauge network, a 30-year climatology of precipitation from the German Weather Service, and hourly Radar composites. The Radar data and a disaggregation technique, developed within the Mesoscale Alpine Project, are used to introduce the high temporal resolution into the gridded rain-gauge analysis. The temporal variability of the resulting data set is consistent with the Radar data, whereas the daily total of the hourly fields corresponds to the rain-gauge measurements. A first version of this data set is produced for the summer season 2002 that includes the extreme flooding event in Eastern Germany in August 2002. Standard verification scores are used to do a preliminary verification of precipitation forecasts from the operational Local Model (LM) on different time scales (1 to 24 hours) and for different river catchments. In the future, the data set will be extended to several years and novel error scores will be implemented to assess the quality of operational QPF in Central Europe.