



Validation of GPM precipitation estimates over the Eastern Mediterranean

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The performance of a Global Precipitation Measurement (GPM) high-resolution product regarding extreme rainfall is validated against rain gauges over the island of Cyprus. The precipitation estimates are available in both high temporal (half hourly) and spatial (10km) resolution and combine data from all passive microwave instruments in the GPM constellation. The comparison is performed with data from a dense and reliable network of meteorological stations, also available in high temporal (hourly) resolution. The period of study covers 12 months of data, focusing on cases with extreme rainfall rate. The aim of the study is to verify the GPM rain estimates, given that such a high-resolution dataset can be used in a series of applications, including the assimilation in numerical weather prediction models or the study of flash floods with hydrological models.