



## **A statistical analysis of the daily precipitation over Serbia**

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A statistical analysis of the daily maximum and mean monthly precipitation measured at ten meteorological stations in Serbia during the period 1949 – 2007 is presented. The precipitation variability is expressed both in absolute as well as in relative terms. The standard deviation, absolute mean deviation and mean absolute interannual variability, as well as the coefficient of variability, the relative variability and the percentage of interannual variability are used.

A very high correlation coefficient exists between the monthly and daily maximum precipitation at all the meteorological stations. Although the mean of daily maximum and mean monthly precipitation varies through the year, their ratio is almost uniform, with an average variability of only about 10 % of the mean value, which varied between 0.312 and 0.342 for Serbia.

We confine our analyses to only the top 10 wettest days of each year at each station. Our choice of 10 days is driven by our desire to have consistency across Serbia, as well as our desire to focus on the heaviest precipitation events. For each station and each year we rank all daily precipitation amounts from highest to lowest. Averaged across the Serbia, the wettest day of the year produces 41.3 mm of precipitation and accounts for 6.3% of the summer precipitation total. The 10th wettest day, by comparison, averages 15.6 mm of precipitation and contributes 2.4% to the summer total. Taken together, 35.5% (232.0 mm) of the total summer precipitation falls during the 10 wettest days of the year.