



The extreme daily precipitation at Belgrade (Serbia)

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For extremes, there is a theorem called the Extremal Types Theorem, which gives asymptotic justification for assuming the extreme data (maxima or minima) follow one of three types of distributions: Gumbel, Frechet or Weibull. These three distributions can be written in a single expression as a family of distributions referred to as the generalised extreme value (GEV) distribution. The GEV distribution is fitted to the annual daily maximum precipitation at Belgrade (Serbia). The method is carried out by using a block maxima approach. The estimation of parameters was done by using the maximum likelihood function. Positive value of the shape parameter (0.1699) indicated that the Frechet distribution is fitted to the daily maximum precipitation in Belgrade. The estimated return levels for the 100-year and 10-year return periods are 109.99 mm and 64.53 mm for the daily maximum precipitation.