Frequency Analysis of Extreme Precipitation in Northeastern Colorado

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Abstract. Regional frequency analysis based on index flood procedure is used to analyze annual maximum precipitation data from northeastern Colorado. The region is analyzed as a whole and as smaller subregions. The GEV and the LN-3 models are used to represent the regional distributions, and the regional parameters are estimated via L-moments. The whole region and the subregions are tested for regional homogeneity. The significantly different growth curves obtained for the whole region and the subregions question the homogeneity of the region as a whole.

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