

Homework No.7 for Extreme Value Statistics

Deadline May 5th, 8AM.

(1) 100 pt.

Consider the meteorological data from the Boston area given in the Excel file of Homework No.5 (http://cgl.elte.hu/~racz/EVS-hf04_Boston.csv) and focus on the daily precipitation given in column E.

(i) First, analyse the data from general point of view and build the distributions of the monthly precipitation (dividing the data into monthly batches will eliminate the possible yearly periodicity in the data). What is the large argument tail of the precipitation distributions?

(ii) On the basis of the above results, what do you expect about the distributions of the extreme precipitations in various months? Verify if your expectation were correct by building the distributions of the extreme monthly precipitation.

(iii) What is your prediction for the expected largest precipitation event in the next 100 years?