

(2) 30 pt.

Create a picture gallery of extreme value distributions for i.i.d. variables discussed in the lectures. Try to understand the trends as γ is varied.

(2) 70 pt.

Fig.1.2 shows the experimental measurements of the breaking strength of identically manufactured glass fibres. Since the breaking is the result of some extreme event of chemical bonds getting loose, one may assume that the distribution of the breaking strength should be one of the extreme value distributions. Fit the experimental curve and find the value of γ which gives the best fit. What can you deduce from the results?

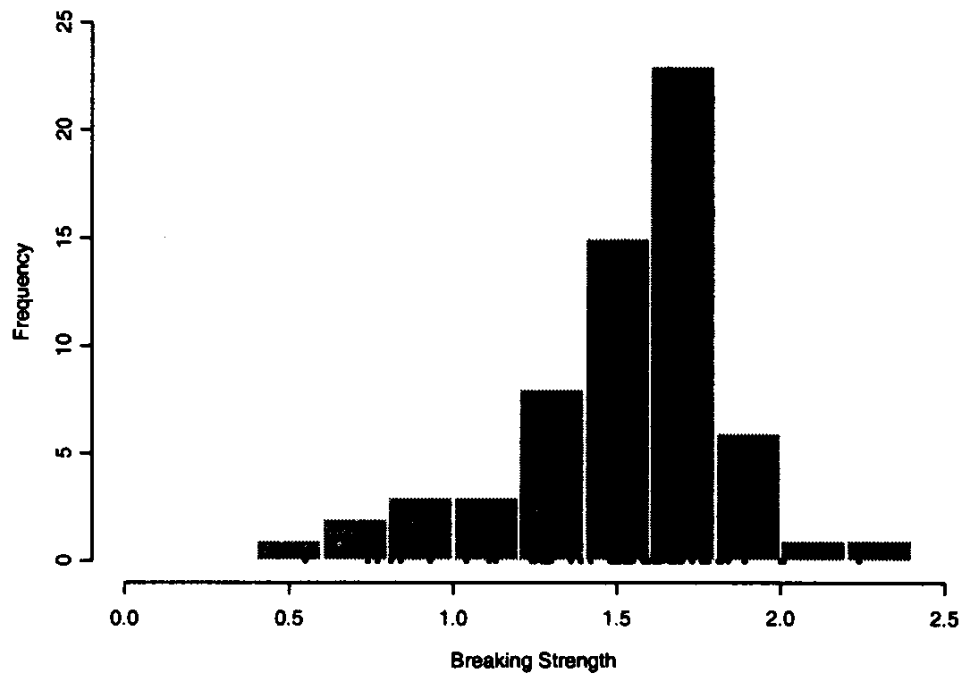


FIGURE 1.2. Histogram of breaking strengths of glass fibers: points indicate actual values.