

Hill, Bruce M.

A simple general approach to inference about the tail of a distribution. (English)

Zbl 0323.62033

Ann. Stat. 3, 1163-1174 (1975).

Summary: Let Y_1, \dots, Y_n , be a sample of independent random variables having a common distribution G , about which some partial information is available, but whose global form is unspecified. By conditioning upon an appropriate subset of the data (determined by a combination of theoretical and data-analytic methods) such a non-parametric problem can be reduced to a relatively tractable parametric form for which both Bayesian and non-Bayesian solutions are available. For example, if the partial information consists of knowledge of the upper tail behavior of the distribution, e.g. $1 - G(x) \sim Cx^{-\alpha}$ for sufficiently large x , then conditioning upon certain of the large order statistics allows an extremely simple parametric analysis.

Reviewer: Bruce M. Hill

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MSC:

62G30 Order statistics; empirical distribution functions
62F99 Parametric inference

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