Title:

An automatic method for detection of extreme values: rules and applications

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Abstract:
The paper illustrates first the use of power-law, Pareto, Zipf and other distributions on traditional topics, as describing cities and firms dimensions, words distributions, and so on. Secondly the paper presents a formal method to detect extreme values, given a quasi Pareto distribution of a given variable. Thirdly a SAS™ procedure calculating the threshold value and some evaluation statistics will be presented. Finally the paper illustrates a case study by which some practical issues will be given. The case study is drawn from revenues data of insurances agencies on different insurance branches: life and non life policies and other topics.
The result will be a two dimensional automatically generated table publishing the list of the agencies having extreme values of revenues in some branches. The branches in which the extreme value have been found will be shown too.

Keywords:
Power law, Pareto, Zipf, extreme value

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