Package ‘TailClassifier’

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Type Package
Title Tail Classifier for Thick-Tailed Discrete Data
Version 0.1.0
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Description Function TailClassifier() in this package is a Tail-Classifier function. The function suggests one of the following types of tail for your discrete data: 1) Power decaying tail; 2) Sub-exponential decaying tail; and 3) Near-exponential decaying tail.
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Description

Function TailClassifier() in this package is a Tail-Classifier function. The function suggests one of the following types of tail for your discrete data: 1) Power decaying tail; 2) Sub-exponential decaying tail; and 3) Near-exponential decaying tail.
Usage

TailClassifier(
    sample_frequencies,
    v.left = 5,
    v.right = min(floor(sum(sample_frequencies)/20), 500)
)

Arguments

sample_frequencies
  The frequency counts for your discrete sample data.

v.left
  The starting point of tail profile. 5 is recommended. A smaller v.left may lead to unreliable results. A larger v.left might be adopted if the sample size is extremely large.

v.right
  The ending point of tail profile. Recommendation is 5% of the sample size but no more than 500. For example, a sample with size 1000 could choose v.right to be 50; and a sample with size 20000 could choose v.right to be 500.

Value

A statement on the type of tail.

Examples

## read built-in random sample that was generated under a sub-exponential distribution
csv <- system.file("extdata", "sample_data.csv", package = "TailClassifier")
sample_data <- readr::read_csv(csv)
## generate the frequency table of the sample
sample_freq=table(sample_data)
## make a classification
TailClassifier(sample_freq)
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