Package 'binostics'

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Type Package

Title Compute Scagnostics

Version 0.1.2

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Description Calculates graph theoretic scagnostics. Scagnostics describe various measures of interest for pairs of variables, based on their appearance on a scatterplot. They are useful tool for discovering interesting or unusual scatterplots from a scatterplot matrix, without having to look at every individual plot.

LazyData yes

License GPL

RoxygenNote 6.1.1

SystemRequirements C++11

Encoding UTF-8

NeedsCompilation yes

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R topics documented:

print.scagdf *Print scagnostics data structure*

Description

Print scagnostics data structure

Usage

```
## S3 method for class 'scagdf'
print(x, ...)
```

Arguments

x	Object to be printed
...	Extra arguments

scagnostics *Calculate scagnostics for a scatterplot*

Description

Scagnostics summarize potentially interesting patterns in 2d scatterplot

Usage

```
scagnostics(x, ...)

## Default S3 method:
scagnostics(x, y, bins = 50, outlierRmv = TRUE, ...)

## S3 method for class 'matrix'
scagnostics(x, ...)

## S3 method for class 'data.frame'
scagnostics(x, ...)

scagnostics_2d(x, ...)
```

Arguments

x, y	object to calculate scagnostics on: a vector, a matrix or a data.frame
...	Extra arguments
bins	number of bins, default=50
outlierRmv	logical for trimming data, default=TRUE

Details

Current scagnostics are:

- Outlying
- Skewed
- Clumpy
- Sparse
- Striated
- Convex
- Skinny
- Stringy
- Monotonic

These are described in more detail in: Graph-Theoretic Scagnostics, Leland Wilkinson, Anushka Anand, Robert Grossman. http://papers.rgrossman.com/proc-094.pdf

You can call the function with two 1d vectors to get a single vector of scagnostics, or with a 2d structure (matrix or data frame) to get scagnostics for every combination of the variables.

Examples

```
scagnostics(1:10, 1:10)
scagnostics(rnorm(100), rnorm(100))
scagnostics(mtcars)
scagnostics(as.matrix(mtcars))
```

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