Package 'RevSD'

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Type Package

Title Visualizing the Standard Deviation via Revolution

Version 0.1.1

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Description We visualize the standard deviation of a data set as the radius of a cylinder whose volume equals the total volume of several cylinders made by revolving the empirical cumulative distribution function about the vertical line through the mean. For more details see Sarkar and Rashid (2016) <doi:10.1080/00031305.2016.1165734>.

License GPL-3

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R topics documented:

revsd	*Visualizing the Standard Deviation via Revolution*

Description

We visualize the standard deviation of a data set by revolving the empirical cumulative distribution function about the vertical line through the mean. The total volume of the collection of cylinders is equated to the volume of a single cylinder of height 1. The radius of this single cylinder is the standard deviation.

Usage

```
revsd(data, shouldInstallAllPackages)
```

Arguments

data   The data that a user inputs, usually a vector of values.

shouldInstallAllPackages

An optional argument, takes a boolean value as input which decides whether or not to install the following packages which are required to launch the application: shiny, shinydashboard, plotrix, and shinyWidgets. FALSE by default.

Value

No return value, the function will open a new window and display a shiny interactive application.

Examples

```
revsd(c(10,18,23,30,36), shouldInstallAllPackages = FALSE)
```

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