Package 'pacviz'

August 17, 2020

Title Pac-Man Residual Function

Version 1.0.0.0

Description This function will create a Pac-Man residual plot for for regression analysis. The data will run through a linear regression and plot the resulting factors of standard deviation against an arbitrary angular measurement.

Depends R (>= 3.3.3)

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Encoding UTF-8

LazyData true

RoxygenNote 7.1.1

Suggests knitr, rmarkdown

VignetteBuilder knitr

Imports plotrix,
circlize,
graphics,
stats,

R topics documented:

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pacman *Pac-Man Residual Function*

Description

This function will create a Pac-Man residual plot for for regression analysis. The Pac-Man residual takes the absolute value of the residual values and plots them radially against the domain mapped to angles ranging from 40 to 320 degrees.

Usage

```
pacman(
  x,
  y,
  title,
  unit,
  axis_label,
  model = lm(y ~ x, data = data.frame(x, y)),
  color1 = "Yellow",
  standardize = FALSE
)
```

Arguments

x, y	Numeric data
title	Figure title
unit	String to define units on the angular axis (For temperature measurements use 'degC' or 'degF')
axis_label	Angular axis label
model	An object for which the extraction of model residuals is meaningful.
color1	Color value as string or rgb
standardize	Boolean to standardize the residual value

Value

Pac-Man residual plot

Examples

```
# Generic Pac-Man residual
x <- rnorm(20, mean=0, sd=10)
y <- log(rnorm(20, mean=0, sd=10), base=exp(1))
pacman(x,y,'Example 1','units', 'Axis Label')

# Pac-Man residual using alternate color, residual standardization, and temperature units
x <- rnorm(20, mean=0, sd=10)
y <- log(rnorm(20, mean=0, sd=10), base=exp(1))
pacman(x,y, 'Example 2', 'degC', "Temperature", color1="lightblue", standardize=TRUE)
```

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