Package 'ggpval'

July 11, 2022

Type Package

Title Annotate Statistical Tests for 'ggplot2'

Version 0.2.5

Description Automatically performs desired statistical tests (e.g. wilcox.test(), t.test()) to compare between groups,
and adds the resulting p-values to the plot with an annotation bar.
Visualizing group differences are frequently performed by boxplots, bar plots, etc.
Statistical test results are often needed to be annotated on these plots.
This package provides a convenient function that works on 'ggplot2' objects,
performs the desired statistical test between groups of interest and annotates the test results on the plot.

URL https://github.com/s6juncheng/ggpval

License GPL-3

Encoding UTF-8

Imports ggplot2, data.table

Suggests knitr, rmarkdown, markdown, testthat

VignetteBuilder knitr

RoxygenNote 7.1.1

NeedsCompilation no

Author Jun Cheng [aut, cre]

Maintainer Jun Cheng <s6juncheng@gmail.com>

Repository CRAN

Date/Publication 2022-07-11 17:10:02 UTC

R topics documented:

add_pval *Add p-values to ggplot objects.*

Description

Add p-values to ggplot objects.

Usage

```
add_pval(
  ggplot_obj,
  pairs = NULL,
  test = "wilcox.test",
  heights = NULL,
  barheight = NULL,
  textsize = 5,
  pval_text_adj = NULL,
  annotation = NULL,
  log = FALSE,
  pval_star = FALSE,
  plotly = FALSE,
  fold_change = FALSE,
  parse_text = NULL,
  response = "infer",
  ...
)
```

Arguments

ggplot_obj	ggplot object
pairs	a list pairs of comparison. Groups indicated by integer numbers counted from left to right. e.g. list(c(1, 2), c(2, 3)) will compare first group with second, second group with third
test	character of statistical testing method. e.g. t.test, wilcox.test. Default wilcox.test
heights	integer or vector of integers. The heights of the p-value/annotation. Default maximum value from the data
barheight	tip bar height of the annotation. Default calculated by range_y / 20
textsize	p-value/annotation text size
pval_text_adj	distance of p-value/annotation from annotation bar. Default barheight/2
annotation	text to annotate. If specified, statistical test will not be done
log	whether y axis is log transformed. Default FALSE
pval_star	whether transform pval numbers to stars
plotly	set to TRUE if wrap the plot with ‘ggploty‘
fold_change	whether also compute and show fold changes. Default FALSE.

parse_text	whether parse the annotation text (NULL, TRUE, FALSE). If NULL, p-values will be parsed, text annotations will not. Default NULL.
response	the column that contains the data for statistical testing. Default infer from ggplot object.
...	additional arguments for statistical testing function (e.g. alternative = "less").

Examples

```
library(ggplot2)
library(ggpval)
data("PlantGrowth")
plt <- ggplot(PlantGrowth, aes(group, weight)) +
  geom_boxplot()
add_pval(plt, pairs = list(c(1, 3)), test='wilcox.test')
```

Index