

Package: ggmatplot (via r-universe)

November 2, 2024

Title Plot Columns of Two Matrices Against Each Other Using 'ggplot2'

Version 0.1.2

Description A quick and easy way of plotting the columns of two matrices or data frames against each other using 'ggplot2'. Although 'ggmatplot' doesn't provide the same flexibility as 'ggplot2', it can be used as a workaround for having to wrangle wide format data into long format for plotting with 'ggplot2'.

URL <https://github.com/xuan-liang/ggmatplot>,
<https://xuan-liang.github.io/ggmatplot/>

BugReports <https://github.com/xuan-liang/ggmatplot/issues>

License GPL-3

Encoding UTF-8

RoxygenNote 7.3.1

Depends R (>= 3.4.0), ggplot2

Imports stats

Suggests rmarkdown, knitr, testthat (>= 3.0.0), vdiffr, tibble, tidyr,
covr

VignetteBuilder knitr

Config/testthat/edition 3

Repository <https://xuan-liang.r-universe.dev>

RemoteUrl <https://github.com/xuan-liang/ggmatplot>

RemoteRef HEAD

RemoteSha 29dca6cc5ffc146859f4f3e77a589a06e1780f1b

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ggmatplot

*ggmatplot***Description**

ggmatplot is a quick and easy way of plotting the columns of two matrices or data frames against each other using [ggplot2](#).

Usage

```
ggmatplot(
  x = NULL,
  y = NULL,
  plot_type = c("point", "line", "both", "density", "histogram", "boxplot", "dotplot",
    "errorplot", "violin", "ecdf"),
  color = NULL,
  fill = NULL,
  shape = NULL,
  linetype = NULL,
  xlim = c(NA, NA),
  ylim = c(NA, NA),
  log = NULL,
  main = NULL,
  xlab = NULL,
  ylab = NULL,
  legend_label = NULL,
  legend_title = NULL,
  desc_stat = "mean_se",
  asp = NA,
  ...
)
```

Arguments

x, y	<p>Vectors or matrices of data.</p> <ul style="list-style-type: none"> • The number of rows of x and y should be the same. • Either x or y should be a vector, unless the number of columns of x and y are the same. • Missing values (NAs) are allowed. • If either x or y is missing, the other is used as y and a vector of 1:n is used as x.
plot_type	A string specifying the type of plot. Possible plot types are point, line, both(point + line), density, histogram, boxplot, dotplot, errorplot, violin, and ecdf. Default plot_type is point.
color, fill	Vectors of colors. Defining only one of them will update both color and fill aesthetics of the plot by default, unless they are both defined simultaneously.

	<ul style="list-style-type: none"> • The number of colors should match the higher number of columns of matrices <i>x</i> or <i>y</i>, and will correspond to each of those columns. • If only a single color is given, the same color will be used for all columns.
<code>shape, linetype</code>	<p>A vector of shapes or line types respectively.</p> <ul style="list-style-type: none"> • The number of shapes/line types should match the higher number of columns of matrices <i>x</i> or <i>y</i>, and will correspond to each of those columns. • If only a single shape/line type is given, the same shape/line type will be used for all columns.
<code>xlim, ylim</code>	<p>Ranges of <i>x</i> and <i>y</i> axes.</p> <ul style="list-style-type: none"> • Each of them should be a two element vector specifying the lower and upper limits of the scale. • If the larger value is given first, the scale will be reversed. If one of the limits is given as <code>NA</code>, the corresponding limit from the range of data will be used.
<code>log</code>	A string defining which axes to transform into a log scale. (<i>x</i> , <i>y</i> or <i>xy</i>)
<code>main, xlab, ylab, legend_title</code>	Strings to update plot title, <i>x</i> axis label, <i>y</i> axis label and legend title respectively.
<code>legend_label</code>	A vector of strings, to rename the legend labels.
<code>desc_stat</code>	Descriptive statistics to be used for visualizing errors, in <code>errorplot</code> . Possible values are <code>mean_se</code> , <code>mean_sd</code> , <code>mean_range</code> , <code>median_iqr</code> and <code>median_range</code> . Default <code>desc_stat</code> is <code>mean_se</code> .
<code>asp</code>	The <i>y/x</i> aspect ratio.
<code>...</code>	Other arguments passed on to the plot. Possible arguments are those that can be passed on to the underlying ggplot layers .

Value

A `ggplot` object. The columns of the input matrices will be plotted against each other using the defined plot type.

Plot Types

`ggmatplotplots` are built upon `ggplot2` layers. The following is a list of `ggmatplot` plot types, along with their underlying `ggplot` `geoms` or `stats`.

- **point** `geom_point`
- **line** `geom_line`
- **both** `geom_point` + `geom_line`
- **density** `geom_density`
- **histogram** `geom_histogram`
- **boxplot** `geom_boxplot`
- **dotplot** `geom_dotplot`
- **errorplot** `geom_pointrange`
- **violin** `geom_violin`
- **ecdf** `stat_ecdf`

Examples

```
# Define a data set
iris_sub <- subset(iris, Species == "setosa")
ggmatplot(iris_sub[, c(1, 3)], iris_sub[, c(2, 4)])
# Modify legend label and axis
ggmatplot(iris_sub[, c(1, 3)], iris_sub[, c(2, 4)],
  shape = c(4, 6),
  legend_label = c("Sepal", "Petal"), legend_title = "",
  xlab = "Length", ylab = "Width"
)
```

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