Package 'scatterpie'

September 12, 2025

Title Scatter Pie Plot

Version 0.2.6

Description Creates scatterpie plots, especially useful for plotting pies on a map.

Depends R (>= 4.1.0), ggplot2

Imports ggforce, rlang, ggfun, stats, tidyr, dplyr, utils, yulab.utils (>= 0.1.6)

Suggests knitr, rmarkdown, prettydoc, maps, scales, cli

VignetteBuilder knitr

License Artistic-2.0

Encoding UTF-8

RoxygenNote 7.3.3

NeedsCompilation no

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Repository CRAN

Date/Publication 2025-09-12 16:20:02 UTC

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geom_scatterpie *geom_scatterpie*

Description

scatter pie plot

Usage

```
geom_scatterpie(
  mapping = NULL,
  data = NULL,
  cols,
  pie_scale = 1,
  sorted_by_radius = FALSE,
  legend_name = "type",
  long_format = FALSE,
  label_radius = NULL,
  label_show_ratio = TRUE,
  label_threshold = 0,
  donut_radius = NULL,
  bg_circle_radius = NULL,
  ...
)

geom_scatterpie2(
  mapping = NULL,
  data,
  cols,
  pie_scale = 1,
  sorted_by_radius = FALSE,
  legend_name = "type",
  long_format = FALSE,
  label_radius = NULL,
  label_show_ratio = TRUE,
  label_threshold = 0,
  donut_radius = NULL,
  bg_circle_radius = NULL,
  ...
)
```

Arguments

mapping	aes mapping
data	data
cols	cols the pie data

pie_scale	amount to scale the pie size if there is no radius mapping exists
sorted_by_radius	whether plotting large pie first
legend_name	name of fill legend
long_format	logical whether use long format of input data
label_radius	numeric the radius of label position (relative the radius of pie), default is NULL, when it is provided, the ratio or value label will be displayed.
label_show_ratio	logical only work when label_radius is not NULL, default is TRUE, meaning the ratio of label will be displayed.
label_threshold	numeric the threshold is to control display the label, the ratio of slice pie smaller than the threshold will not be displayed. default is 0.
donut_radius	numeric the radius of donut chart (relative the radius of circle), default is NULL. it should be between 0 and 1, if it is provided, the donut chart will be displayed instead of pie chart.
bg_circle_radius	numeric the radius of background circle, default is FALSE, we suggest setting it to between 1 and 1.5 .
...	additional parameters

Value

layer

Author(s)

Guangchuang Yu

Examples

```
library(ggplot2)
d <- data.frame(x=rnorm(5), y=rnorm(5))
d$A <- abs(rnorm(5, sd=1))
d$B <- abs(rnorm(5, sd=2))
d$C <- abs(rnorm(5, sd=3))

ggplot() +
geom_scatterpie(
  aes(x=x, y=y), data=d, cols=c("A", "B", "C")
) +
coord_fixed()

ggplot() +
geom_scatterpie(
  aes(x=x, y=y), data = d, cols=c("A", "B", "C"),
  label_radius=1.05
) +
```

```
coord_fixed()

d <- tidyr::gather(d, key="letters", value="value", -x:-y)
ggplot() + geom_scatterpie(aes(x=x, y=y), data=d, cols="letters", long_format=TRUE) + coord_fixed()
p1 <- ggplot() +
      geom_scatterpie(
        mapping = aes(x=x, y=y), data=d, cols="letters",
        long_format=TRUE,
        donut_radius=.5
      ) +
      coord_fixed()
p1
p2 <- ggplot() +
      geom_scatterpie(
        mapping = aes(x=x, y=y), data=d, cols="letters",
        long_format=TRUE,
        donut_radius = .5,
        bg_circle_radius = 1.2
      ) +
      coord_fixed()
p2
d |> dplyr::select(c(x, y)) |> dplyr::distinct() |> dplyr::mutate(Cell=c('A','A','B','C','B')) -> d2
d |> dplyr::left_join(d2) -> d3
d3$r_size <- c(2, 3, 4, 5, 6) * .01

head(d3)
p3 <- ggplot() +
   geom_scatterpie(data = d3, mapping = aes(x=x, y=y, r = r_size, color=Cell), cols="letters",
                     long_format=TRUE, donut_radius=.5, color = NA, linewidth=2,
                      bg_circle_radius=1.2) + coord_fixed()
p3

p4 <- ggplot() +
      geom_scatterpie(data = d3,
                      mapping = aes(x, y = y, r = r_size),
                      cols = 'letters',
                      long_format = TRUE,
                      label_radius = 1.1,
                      label_show_ratio = FALSE,
                      label_threshold = 0.06,
                      fontsize = 3
      ) +
      coord_fixed()
p4
```

---

geom_scatterpie_legend

geom_scatterpie_legend

Description

legend of scatterpie

Usage

```
geom_scatterpie_legend(
  radius,
  x,
  y,
  n = 5,
  breaks = NULL,
  labeller,
  label_position = "right",
  ...
)
```

Arguments

radius	radius vector
x	x position
y	y position
n	number of circle
breaks	A character vector of breaks, default is NULL.
labeller	function to label radius
label_position	a character string indicating the position of labels, "right" (default) or "left" or any abbreviation of these
...	other text arguments passed on to ggplot2::layer()

Value

layer

Author(s)

Guangchuang Yu

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recenter *recenter*

Description

re-center map data

Usage

```
recenter(mapdata, center, longitude_column = "long")
```

Arguments

`mapdata`	map data, shoud be a data.frame
`center`	center
`longitude_column`	longitude column

Value

updated map data

Author(s)

ygc

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