

# Package ‘scatterpie’

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**Title** Scatter Pie Plot

**Version** 0.2.3

**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

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

**VignetteBuilder** knitr

**License** Artistic-2.0

**Encoding** UTF-8

**RoxygenNote** 7.3.1

**NeedsCompilation** no

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**Repository** CRAN

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geom\_scatterpie      *geom\_scatterpie*

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### Description

scatter pie plot

### Usage

```
geom_scatterpie(
  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 = 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

```

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geom\_scatterpie\_legend

*geom\_scatterpie\_legend*

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## 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 <code>ggplot2::layer()</code>

**Value**

layer

**Author(s)**

Guangchuang Yu

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recenter

*recenter*


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**Description**

re-center map data

**Usage**

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

**Arguments**

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

**Value**

updated map data

**Author(s)**

ygc

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