

Package ‘groupedHyperframe’

May 19, 2026

Type Package

Title Grouped Hyper Data Frame

Version 0.4.1

Date 2026-05-19

Description

To aggregate a hyper data frame, defined in the package 'spatstat.geom', according to a grouping structure. To facilitate downstream analysis based on a ``grouped" hyper data frame.

LazyData true

LazyDataCompression xz

Encoding UTF-8

License GPL-2

Language en-US

URL <https://github.com/tingtingzhan/groupedHyperframe>

Depends R (>= 4.6)

Imports cli, spatstat.geom

Suggests survival, spatstat.data

Config/roxygen2/version 8.0.0

Config/roxygen2/markdown TRUE

NeedsCompilation no

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Repository CRAN

Date/Publication 2026-05-19 21:20:12 UTC

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groupedHyperframe-package

groupedHyperframe: Grouped Hyper Data Frame

Description

To aggregate a hyper data frame, defined in the package 'spatstat.geom', according to a grouping structure. To facilitate downstream analysis based on a "grouped" hyper data frame.

Author(s)

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See Also

Useful links:

- <https://github.com/tingtingzhan/groupedHyperframe>

aggregate.hyperframe *Aggregate Hyper Data Frame*

Description

To [aggregate](#) a [hyperframe](#).

Usage

```
## S3 method for class 'hyperframe'
aggregate(x, by, ...)
```

Arguments

x	hyperframe
by	two-sided formula , whose right-hand-side contains only the regular-column names of the input x
...	additional parameters of the function aggregate.data.frame , <i>except for simplify</i>

Value

The S3 method [aggregate.hyperframe\(\)](#) returns a [hyperframe](#).

aggregate2	<i>Aggregate, an Alternative formula-Interface</i>
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Description

An alternative aggregation function with a [formula](#)-interface, to avoid the [cbind](#)-operation in the function [aggregate.formula](#).

Usage

```
aggregate2(data, by, ...)
```

Arguments

data	a data.frame
by	a two-sided formula
...	additional parameters of the function aggregate.data.frame , <i>except for simplify</i>

Details

The [cbind](#)-operation in the function [aggregate.formula](#) messes up with column(s) that are [factor](#) and treat them as [integer](#) [Surv](#) and treat them as [matrix](#)

The function [aggregate.data.frame](#) only accepts a [list](#) of [factors](#) for the parameter `by`.

Therefore, the function [aggregate2\(\)](#) is created to take care of the [factor](#) and [Surv](#) columns of the input, with a [formula](#)-interface.

Value

The function [aggregate2\(\)](#) returns a [data.frame](#).

Note

The function [aggregate.data.frame](#) is the workhorse of the function [aggregate.formula](#).

The function [as.hyperframe.data.frame](#) is **designed** to handle the [list](#)-columns returned by the function [aggregate](#).

aggregate_FUN	<i>Handy FUNctions for aggregate</i>
---------------	--

Description

Handy functions to be passed to the parameter FUN of the function [aggregate](#) and/or [aggregate2\(\)](#).

Usage

```
unique_or_identity(x)
```

Arguments

x an R object

Value

The function [unique_or_identity\(\)](#) returns an R object.

as.vectorlist	<i>Convert R Object to vectorlist</i>
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Description

Convert R Object to vectorlist

Usage

```
as.vectorlist(x, ...)
```

Arguments

x a [list](#)
... additional parameters of the function [is.vectorlist\(\)](#)

Value

The function [as.vectorlist\(\)](#) returns an R object of S3 class 'vectorlist'.

Examples

```
list(rnorm(6L), rnorm(6L)) |>  
as.vectorlist()
```

aug4gam	<i>Augment Hypercolumn(s) for gam</i>
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Description

Augment *all* [numeric vector](#) hypercolumns in a [hyperframe](#) for [gam](#).

Usage

```
aug4gam(x, ...)  
  
## S3 method for class 'data.frame'  
aug4gam(x, ...)  
  
## S3 method for class 'hyperframe'  
aug4gam(x, ...)  
  
## S3 method for class 'vectorlist'  
aug4gam(x, ...)
```

Arguments

x	see Usage
...	additional parameters, currently of no use

Value

The S3 generic function [aug4gam\(\)](#) returns a [data.frame](#).

Author(s)

Tingting Zhan, Erjia Cui

defunct	<i>Defunct Functions</i>
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Description

The functions mentioned in hard-copy journals, but later [.Defunct](#).

Usage

```
aggregate_quantile(...)
```

Arguments

... Defunct parameters

Value

The `.Defunct` functions do not have a returned value.

is.vectorlist	<i>Vector-List</i>
---------------	--------------------

Description

To determine if an R object is a [list](#) of [vectors](#) with the same [storage.mode](#), [length](#) and [attributes](#).

Usage

```
is.vectorlist(  
  x,  
  mode = c("logical", "integer", "numeric", "double", "character")  
)
```

Arguments

x a [listof](#)

mode [character](#) scalar other than 'any', 'complex' and 'raw', see the function [is.vector](#)

Value

The function `is.vectorlist()` returns a [logical](#) scalar.

Examples

```
spatstat.data::Kovesi$values |>  
  is.vectorlist(mode = 'character') |>  
  stopifnot()  
spatstat.data::Kovesi$values |>  
  is.vectorlist(mode = 'numeric')
```

Description

To create a hyper data frame with one-and-only-one [ppp](#)-hyper column.

Usage

```
pppBy(  
  marks,  
  coords = ~x + y,  
  by,  
  data,  
  window = owin(xrange = range(.x), yrange = range(.y)),  
  ...  
)
```

Arguments

marks	one-sided formula , e.g., $\sim m1+m2$, where m_i 's are one or more marks
coords	one-sided formula , variable names of the x - and y -coordinates in data. Default value is $\sim x+y$.
by	two-sided formula
data	data.frame
window	observation window owin , default value is the x - and y -span of coords in data.
...	additional parameters of the function ppp

Value

The function [pppBy\(\)](#) returns a hyper data frame with one-and-only-one [ppp](#)-hyper column.

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