

Package ‘mycor’

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Title Automatic Correlation and Regression Test in a 'data.frame'

Version 0.1.1

Description Perform correlation and linear regression test among the numeric fields in a data.frame automatically and make plots using pairs or lattice::parallelplot.

Depends R (>= 3.1.1)

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URL <https://github.com/cardiomoon/mycor>

LazyData true

Imports lattice

Suggests knitr, testthat

VignetteBuilder knitr

RoxygenNote 6.0.1

NeedsCompilation no

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mycor	<i>Perform correlation and linear regression for a data.frame automatically</i>
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Description

Perform correlation and linear regression for a data.frame automatically

Usage

```
mycor(x, ..., digits)

## Default S3 method:
mycor(x, ..., digits = 3)

## S3 method for class 'formula'
mycor(formula, data, ..., digits = 3)
```

Arguments

x	A data.frame.
...	further arguments to be passed to <code>cor.test</code> .
digits	integer indicating the number of decimal places (round) or significant digits (significant) to be used.
formula	a formula of the form $\sim u + v$, where each of u and v are numeric variables giving the data values for one sample. The samples must be of the same length.
data	A data.frame
mycor	Object to mycor

Value

mycor returns as object of class "mycor"

The function `summary` is used to print a summary of the result. The function `plot` is used to plot the results using `pairs` and `parallelplot`.

An object of class "mycor:" is a list containing at least following components:

df a data.frame

select logical vectors returns if columns of df is.numeric

out a list of class "htest" from `cor.test` between the last paired samples in a data.frame.

r a matrix consist of r values from `cor.test` between all pairs of numeric data from a data.frame

p a matrix consist of p values from `cor.test` between all pairs of numeric data from a data.frame

slope a matrix consist of slope values from `lm` between all pairs of numeric data from a data.frame

intercept a matrix consist of intercept values from `lm` between all pairs of numeric data from a data.frame

Methods (by class)

- default: for class data.frame
- formula: for class "formula"

Examples

```

out=mycor(iris)
plot(out)
plot(out, groups=Species)
plot(out,type=2,groups=species)
plot(out,type=4,groups=species)
out1=mycor(~mpg+disp+wt+hp,data=mtcars,alternative="greater",methods="kendall",
           conf.level=0.95)
plot(out1,type=3)
plot(out1,type=4,groups=cyl)

```

mylm

Correlation and Fitting linear model function for function "mycor"

Description

Correlation and Fitting linear model function for function "mycor"

Usage

```
mylm(y, x, ..., digits = 3)
```

Arguments

y	numeric vectors of data values
x	numeric vectors of data values
...	further arguments to be passed to or from methods.
digits	integer indicating the number of decimal places (round) or significant digits (signif) to be used.

Value

mylm returns a list of following components

out a list of class "htest" from [cor.test](#) between the last paired samples in a data.frame.

result a numeric vector of length 4, consist of r and p values from [cor.test](#), slope and intercept values from [lm](#) between numeric vector y and x

panel.cor	<i>Make correlation plot for plot of class "mycor"</i>
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Description

Make correlation plot for plot of class "mycor"

Usage

```
panel.cor(x, y, digits = 2, prefix = "", cex.cor)
```

Arguments

x	a numeric vector
y	a numeric vector
digits	integer indicating the number of decimal places (round) or significant digits (signif) to be used.
prefix	a character vector
cex.cor	a numeric variable

panel.hist	<i>Make plot with histogram for plot of class "mycor"</i>
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Description

Make plot with histogram for plot of class "mycor"

Usage

```
panel.hist(x, ...)
```

Arguments

x	a numeric vector
...	further arguments to be passed to or from methods.

plot.mycor	<i>Plot for an object of class "mycor"</i>
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Description

Plot for an object of class "mycor"

Usage

```
## S3 method for class 'mycor'  
plot(x, ..., groups = -1, type = 1)
```

Arguments

x	an object of class "mycor"
...	further arguments to be passed to pairs or parallelplot (in case of "type" argument is 4).
groups	a variable to be evaluated in a data.frame x\$df, expected to act as a grouping variable within each panel, typically used to distinguish different groups by varying graphical parameters like color and line type.
type	specify the type of plot

Examples

```
out=mycor(iris)  
plot(out)  
plot(out, groups=Species)  
plot(out, type=2, groups=species)  
out1=mycor(mtcars[1:5], alternative="greater", methods="kendall",  
           conf.level=0.95)  
plot(out1, type=3)  
plot(out1, type=4, groups=cyl)
```

print.mycor	<i>Print function for class "mycor"</i>
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Description

Print function for class "mycor"

Usage

```
## S3 method for class 'mycor'  
print(x, ...)
```

Arguments

x an object of class "mycor", a result of a call to [mycor](#).
... further arguments to be passed to or from methods.

Examples

```
out=mycor(iris)
print(out)
```

summary.mycor

Summarizing function for class "mycor"

Description

Summarizing function for class "mycor"

Usage

```
## S3 method for class 'mycor'
summary(object, ...)
```

Arguments

object an object of class "mycor", a result of a call to [mycor](#).
... further arguments to be passed to or from methods.

Examples

```
out=mycor(iris)
summary(out)
```

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