Package 'ggrcs'

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Type Package

Title Draw Histograms and Restricted Cubic Splines (RCS)

Version 0.3.8

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Description You can use this function to easily draw a combined histogram and restricted cubic spline. The function draws the graph through 'ggplot2'. RCS fitting requires the use of the rcs() function of the 'rms' package.
Can fit cox regression, logistic regression. This method was described by Per Kragh (2003) <doi:10.1002/sim.1497>.

License GPL-3

Depends R (>= 4.2.0)

Imports rms, ggplot2, scales, cowplot

Encoding UTF-8

LazyData true

RoxygenNote 7.2.1

Suggests knitr, rmarkdown

VignetteBuilder knitr

NeedsCompilation no

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R topics documented:

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ggrcs *ggrcs*

Description

A Function to Draw Histograms and Restricted Cubic Splines (RCS)

Arguments

data	need a dataframe
fit	You need the fitted model.Must be lrm or coxph.
x	The target variable you wish to fit. It is displayed on the X-axis when plotting.

Details

You can use this function to easily draw a combined.histogram and restricted cubic spline.The function draws the graph through ggplot2.RCS fitting requires the use of the rcs function of the RMS package.Can fit cox regression,logistic regression and linear regression models.

Value

a picture

Examples

```
library(rms)
library(ggplot2)
library(scales)
library(cowplot)
dt<-smoke
dd<-datadist(dt)
options(datadist='dd')
fit<- cph(Surv(time,status==1) ~ rcs(age,4)+gender, x=TRUE, y=TRUE,data=dt)
###single group
ggrcs(data=dt,fit=fit,x="age")
##two groups
ggrcs(data=dt,fit=fit,x="age",group="gender")
```

predata *predata*

Description

Generate the predicted data for the function. This is needed for drawing.

Usage

```
predata(fit, variables, y, group = NULL)
```

Arguments

fit	Model function required for prediction.
variables	variable name.
y	the value of the variable.
group	Variables that need to be grouped.

Value

Data required for plotting.

predata.coxph *predata.coxph*

Description

Generate the predicted data for the function. This is needed for drawing.

Usage

```
## S3 method for class 'coxph'
predata(fit, variables, y, group = NULL)
```

Arguments

fit	Model function required for prediction.
variables	variable name.
y	the value of the variable.
group	Variables that need to be grouped.

Value

Data required for plotting.

predata.lrm *predata.lrm*

Description

Generate the predicted data for the function. This is needed for drawing.

Usage

```
## S3 method for class 'lrm'
predata(fit, variables, y, group = NULL)
```

Arguments

fit	Model function required for prediction.
variables	variable name.
y	the value of the variable.
group	Variables that need to be grouped.

Value

Data required for plotting.

predata.ols *predata.ols*

Description

Generate the predicted data for the function. This is needed for drawing.

Usage

```
## S3 method for class 'ols'
predata(fit, variables, y, group = NULL)
```

Arguments

fit	Model function required for prediction.
variables	variable name.
y	the value of the variable.
group	Variables that need to be grouped.

Value

Data required for plotting.

singlercs *singlercs*

Description

A Function to Draw Restricted Cubic Splines (RCS)

Arguments

data	need a dataframe
fit	You need the fitted model.Must be lrm , ols or coxph.
x	The target variable you wish to fit. It is displayed on the X-axis when plotting.

Details

You can use this function to easily draw a restricted cubic spline.The function draws the graph through ggplot2.RCS fitting requires the use of the rcs function of the RMS package.Can fit cox regression,logistic regression and linear regression models.

Value

a picture

Examples

```
library(rms)
library(ggplot2)
library(scales)
dt<-smoke
dd<-datadist(dt)
options(datadist='dd')
fit<- cph(Surv(time,status==1) ~ rcs(age,4)+gender, x=TRUE, y=TRUE,data=dt)
###one group
singlercs(data=dt,fit=fit,x="age")
##two groups
singlercs(data=dt,fit=fit,x="age",group="gender")
```

smoke *A data on age and smoking rates.*

Description

A data on age and smoking rates.

Usage

```
data(smoke)
```

Format

An object of class `data.frame` with 995 rows and 5 columns.

Examples

```
data(smoke)
```

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