Package 'andrews'

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Type Package

Title Andrews curves

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Description Andrews curves for visualization of multidimensional data

License GPL (>= 2)

LazyLoad yes

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R topics documented:

`andrews` *Andrews curves*

Description

Andrews curves for visualization of multidimensional data

Usage

```
andrews(df, type=1, clr=NULL, step=100, ymax=10, main=NULL, sub=NULL)
```

Arguments

df	data frame.
type	type of curve 1: f(t)=x1/(2^0.5)+x2*sin(t)+x3*cos(t)+x4*sin(2*t)+x5*cos(2*t)+... 2: f(t)=x1*sin(t)+x2*cos(t)+x3*sin(2*t)+x4*cos(2*t)+... 3: f(t)=x1*cos(t)+x2*cos((2*t)^0.5)+x3*cos((3*t)^0.5)+... 4: f(t)=1/(2^0.5)*(x1+x2*(sin(t)+cos(t))+x3*(sin(t)-cos(t))+x4*(sin(2*t)+cos(2*t))+x
clr	number of column id date frame for color of curves.
step	smoothness of curves.
ymax	maximum of y coordinate.
main	main title for the plot.
sub	sub title for the plot.

Details

Andrews curves transform multidimensional data into curves. This package presents four types of curves.

Author(s)

Jaroslav Myslivec <jaroslav.myslivec@upce.cz>

References

Andrews, D. F. (1972) Plots of High-Dimensional Data. Biometrics, vol. 28, no. 1, pp. 125-136.

Khattree, R., Naik, D. N. (2002) Andrews Plots for Multivariate Data: Some New Suggestions and Applications. Journal of Statistical Planning and Inference, vol. 100, no. 2, pp. 411-425.

Examples

```
data(iris)
andrews(iris,clr=5,ymax=3)
andrews(iris,type=4,clr=5,ymax=2)
```

`normalize` *Nomralization*

Description

Normalization of variable.

Usage

```
normalize(ar)
```

Arguments

`ar`	numeric variable.

Details

Normalization of variable: `ar<-(ar-min(ar))/(max(ar)-min(ar))`

Value

Returns normalized variable.

Author(s)

Jaroslav Myslivec <jaroslav.myslivec@upce.cz>

`numarray` *Numeric array*

Description

Extracts numeric array from data frame.

Usage

```
numarray(df)
```

Arguments

`df`	data frame.

Details

Extracts numeric array from data frame.

Value

Returns numeric array.

Author(s)

Jaroslav Myslivec <jaroslav.myslivec@upce.cz>

`selectand` *Selecting in Andrews curves*

Description

Selecting object utility in Andrews curves

Usage

```
selectand(df, type=1, step=100, ncol=0, from=0, to=1, col=2)
```

Arguments

`df`	data frame.
`type`	type of curve.
`step`	smoothness of curves.
`ncol`	number of column in data frame for selection.
`from`	from value.
`to`	to value.
`col`	color of selected objects.

Details

Define which objects will be selected (colored) in Andrews curves.

Author(s)

Jaroslav Myslivec <jaroslav.myslivec@upce.cz>

Examples

```
data(iris)
andrews(iris,clr=5,ymax=3)
selectand(iris,ncol=1,from=5,to=5.5,col=1)
```

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