Package 'fmaTools'

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Type Package

Title Tools to integrate the package FactMixtAnalysis

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Description Functions to explore results of factor mixture analysis

Depends R (>= 3.0.2), FactMixtAnalysis, ggplot2

License GPL-3

URL https://github.com/DavideMassidda/fmaTools

R topics documented:

`factorplot` *Plot Factor Scores*

Description

Plot the factor scores (z scale) of factors for each latent class using a barplot.

Usage

```
factorplot(fit, main = NULL, legend.text = NULL, bw = FALSE)
```

Arguments

fit	Output of the function fma.
main	Text to use as title for the plot.
legend.text	Text to use as title for legend of the plot.
bw	Logical value indicating if the graph must be filled in black and white.

Details

Error bars represent the standard errors.

Value

A graphical output showing the factor scores.

References

~~ Literature or other references for background information ~~

See Also

fma

Examples

```
## Not run:
data(fmaDemo)
fit3 <- fma(fmaDemo, k=3, r=2)
factorplot(fit3)

## End(Not run)
```

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fmaDemo *Simulated Data for Factor Mixture Analysis*

Description

The dataset contains simulated responses on a 1-4 ordinal scale of 600 individuals to a two-factors psychometric questionnaire.

Usage

```
data(fmaDemo)
```

Format

A data.frame object.

Examples

```
## Not run:
data(fmaDemo)

## End(Not run)
```

`fmaIC` *Information criteria of factor mixture models*

Description

Description

Usage

```
fmaIC(...)
plotIC(object, main = "Information criteria")
```

Arguments

`...`	Objects containing fitted models with the function `fma`.
`object`	An object returned by the function `plotIC`.
`main`	Character: the title of the plot.

Value

To describe

References

~~ Literature or other references for background information ~~

See Also

`fma`

Examples

```
## Not run:
data(fmaDemo) # Two-factors questionnaire
fit1 <- fma(fmaDemo, k=1, r=2)
fit2 <- fma(fmaDemo, k=2, r=2)
fit3 <- fma(fmaDemo, k=3, r=2)
fit4 <- fma(fmaDemo, k=4, r=2)
fit5 <- fma(fmaDemo, k=5, r=2)
information <- fmaIC(fit1,fit2,fit3,fit4,fit5)
plotIC(information)

## End(Not run)
```

multifmaIC *Information Criteria for Multiple Factor Mixture Models*

Description

Fit simultaneously a factor mixture model for k classes and r factors.

Usage

```
multifmaIC(dataset, k, r, ...)
tileplot(object, index = "BIC", main = NULL, legend.text = NULL, bw = FALSE)
```

Arguments

dataset	Data frame or matrix with observed data.
k	The number of the mixture components.
r	The number of factors.
...	Further arguments for the function fma.
object	An object fitted with multifmaIC.
index	Character string indicating the index to display.
main	Text to use as title for the plot.
legend.text	Text to use as title for legend of the plot.
bw	Logical value indicating if the graph must be filled in black and white.

Details

~~ Insert details ~~

Value

The function multifmaIC returns a list factors*classes; this output can be visualized using the function tileplot, which shows a tileplot for the distribution of a given index.

References

~~ Literature or other references for background information ~~

See Also

fma

Examples

```
## Not run:
data(fmaDemo)
fit <- multifmaIC(fmaDemo, k=1:5, r=1:5)
tileplot(fit)

## End(Not run)
```

plotLC *Plot Latent Classes*

Description

Plot the item scores of latent classes estimated by the function `fma`.

Usage

```
plotLC(dataset, fit, fn=mean, ylim = NULL)
```

Arguments

`dataset`	Data frame containing raw data.
`fit`	Output of the function `fma`.
`fn`	Function scoring for items.
`ylim`	Limits of vertical axis for the graph.

Value

A graphical output showing the response pattern of each class.

References

~~ Literature or other references for background information ~~

See Also

`fma`

Examples

```
## Not run:
data(fmaDemo)
fit3 <- fma(fmaDemo, k=3, r=2)
plotLC(fmaDemo, fit3)

## End(Not run)
```

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