Package 'rapidsplit'

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Type Package

Title Fast split-half reliability algorithm

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Author Sercan Kahveci

Maintainer Sercan Kahveci <sercan.kahveci@plus.ac.at>

Description Fast and flexible split-half reliability algorithm.

License GPL (>= 2)

Imports Rcpp (>= 1.0.5), AATtools

LinkingTo Rcpp

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`applyItersplits` *applyItersplits*

Description

generate splits for splithalf

Usage

```
applyItersplits(iters, splits, replace = FALSE)
```

Arguments

iters	number of iterations
splits	list of vectors of row numbers
replace	Sample without (default) or with replacement

---

colMedians *colMedians*

Description

get column medians

Usage

```
colMedians(mat)

colMedians_mask(mat, mask)

mediansByMask(values, mask)

colMeans_mask(mat, mask)

meansByMask(values, mask)
```

Arguments

mat	a matrix with values to aggregate
mask	a logical matrix determining which data points to include and which not to
values	Values to aggregate over in different mask configurations

---

colSds *colSds*

Description

get column SDs

Usage

```
colSds(mat)

colSds_mask(mat, mask)

sdsByMask(values, mask)
```

Arguments

mat	the matrix to retrieve column SDs from
mask	a logical matrix determining which data points to include and which not to
values	Values to aggregate over in different mask configurations

corByColumns — *Correlate each column of 1 matrix with the same column in another matrix*

Description

Correlate each column of 1 matrix with the same column in another matrix

Usage

```
corByColumns(mat1, mat2)

corByColumns_mask(mat1, mat2, mask)
```

Arguments

mat1, mat2	Matrices whose values to correlate by column
mask	Logical matrix marking which data points to include

Value

A numeric vector of correlations per column

ExcludeSDOutliers — *Exclude SD-based outliers*

Description

Update a mask matrix based on outlyingness

Usage

```
ExcludeSDOutliers(rtvec, mask, sdlim = 3)

ExcludeSDOutliers_nomask(mat, sdlim = 3)
```

Arguments

rtvec	Reaction time vector
mask	a logical matrix determining which data points to include and which not to
sdlim	Standard deviation limit to apply; values beyond are classified as outliers and masked
mat	Matrix in which to mark SD-based outleirs by column (with FALSE)

Value

An updated mask

maskOLExclusion *Exclude outliers by mask*

Description

Exclude outliers by mask

Usage

```
maskOLExclusion(values, mask, maxsd)
```

Arguments

values	values to detect outliers from
mask	a logical matrix determining which data points to include per iteration (column)
maxsd	values exceeding more than this value in SDs will be excluded from the mask

Value

An updated logical mask matrix with all outliers excluded

rapidsplit *rapidsplit*

Description

A very fast algorithm for permutated split-half reliability

Usage

```
rapidsplit(
  ds,
  subjvar,
  diffvars = NULL,
  stratvars = NULL,
  rtvar,
  iters,
  agg = c("means", "medians"),
  standardize = F
)
```

Arguments

ds	Dataset, a data.frame
subjvar	Subject ID variable name, a character
diffvars	Variables that determine which conditions need to be subtracted from each other, a character
stratvars	Additional variables that the splits should be stratified by, if possible; a character

rtvar	Reaction time variable name, a character
iters	Number of split-halves to average, an integer
agg	The function by which to aggregate the RTs; can be "means" or "medians"
standardize	Whether to divide by scores by the subject's SD; a logical

Value

A list containing the averaged reliability as well as a vector with the reliability of each iteration

Examples

```
print("no example")
```

---

stratified_itersplits *stratified_itersplits*

Description

generate stratified splits for a single participant

Usage

```
stratified_itersplits(itercount, groupsizes)
```

Arguments

itercount	number of iterations
groupsizes	vector of number of RTs per group to stratify

Details

This first equally splits what can be equally split within groups. Then it randomly splits all the leftovers.

Value

A matrix with zeroes and ones

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