Package 'Bullock'

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Type Package

Title miscellaneous helper utilities

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Imports gdata, stringr

Description functions that help me do miscellaneous tasks a little more quickly. These range in complexity from a function that just removes NA values from a vector prior to summing it (sumNA) to a function that helps me to build LaTeX tables from regression output in the style that I like (latable).

License GPL (version 2 or later)

LazyLoad yes

R topics documented:

alpha_cronbach *Compute Cronbach's alpha for a battery of items.*

Description

This function is called by reliability(). It generally should not be called by end users.

Usage

```
alpha_cronbach(S)
```

Arguments

S	Variance-covariance matrix of responses to a battery of measurements.

Author(s)

Joseph F. Lucke

latable *Print LaTeX table of regression results*

Description

Takes a list of regression models and returns a table of regression output formatted for LaTeX. There are two columns per regression: one for the coefficient estimates, another for standard errors.

Usage

```
latable(tables, substrings.to.remove = NULL, rows.to.remove=NULL, npmakebox = TRUE)
```

Arguments

tables	List of regression models. Supports models of class glm, ivreg, lm, negbin, polr, vglm, and zeroinfl.
substrings.to.remove	List of strings or regular expressions. If it is not a list, it will be coerced to a list with as.list(). Substrings in the row names that match any element in substrings.to.remove will be removed before the output is created.
rows.to.remove	Should be a list of strings or regular expressions. If it is not a list, it will be coerced to a list with as.list(). Rows that contain substrings matching any element in rows.to.remove will be removed from the output table before it is returned by the function. This is useful for creating "incomplete" regression tables that do not contain rows for some variables, e.g., control variables.
npmakebox	Improves formatting of the "Number of observations" row, mainly by ensuring that the Ns for each regression aren't decimal-aligned with the coefficient estimates. Requires the numprint package to be loaded in LaTeX.

Value

Returns a table of regression output formatted for LaTeX. The table is designed to be copied directly into LaTeX.

Note

The format of the tables produced by `latable` is inspired by "Estimates of relative survival rates, by cancer site," a table in Edward Tufte's essay on "The Cognitive Style of PowerPoint."

The current version works well for `lm` and `ivreg` models. It may be buggy when applied to models of other classes.

The current version produces buggy output if the name of the intercept row (typically "(Intercept)" or "Intercept" is modified by `substrings.to.remove` or `rows.to.remove`.

Author(s)

John G. Bullock

See Also

There are other packages that perform similar functions. See the `xtable` and `apsrtable` functions for alternatives.

`lNA` *Calculate length of vector after omitting NA values*

Usage

```
lNA(x)
```

Arguments

`x`

`meanNA` *Calculate mean of vector after omitting NA values*

Usage

```
meanNA(x)
```

Arguments

`x`

merge_fac *Merge factors*

Description

Fill in missing values in one factor with missing values from another.

Usage

```
merge_fac(fac.names)
```

Arguments

fac.names	character vector of factor names

Details

All factors should be of the same length. Missing values in the first factor named in `fac.names` are filled in with corresponding values from the second factor. Missing values in this merged factor are filled in with corresponding values from the third factor. And so on.

Note

Merging factors in this way is trickier than just using a command like `fac1[is.na(fac1)] <- fac2[is.na(fac1)]` because fac1 and fac2 may have different factor levels. This commands takes care of the problem by merging the levels among different factors.

Author(s)

John G. Bullock

modal_value *Find modal value of a vector*

Description

Find modal value of a vector.

Usage

```
modal_value(x, na.rm=FALSE)
```

Arguments

x	a vector
na.rm	should NAs be removed from the vector before modal value is determined?

Author(s)

unknown; copied from http://rwiki.sciviews.org/doku.php?id=tips:stats-basic:modalvalue

`move.to.df` *Move a list of variables into a data frame.*

Usage

```
move.to.df(pattern = NULL, move = TRUE)
```

Arguments

`pattern`

`move`

`noNAmatrix` *Remove rows with any NA from a matrix.*

Usage

```
noNAmatrix(x)
```

Arguments

`x`

`reliability` *Compute Cronbach's alpha for a battery of items.*

Description

Compute Cronbach's alpha for a battery of items, and show the reliability for all different batteries that might be created by removing one item from the original battery.

Usage

```
reliability (x, ...)
```

Arguments

`x`	Matrix of measurements, e.g., survey responses. Cannot have missing data.
`...`	Arguments to be passed to `alpha.cronbach()`. Currently serves no function.

Author(s)

Peter Ellis

rescale *Rescale a variable*

Usage

```
rescale(x, newrange)
```

Arguments

x

newrange

Author(s)

Simon D. Jackman

sdNA *Calculate standard deviation of vector after omitting NA values*

Usage

```
sdNA(x, na.rm = TRUE)
```

Arguments

x

na.rm

split_fac *Create dummy variables for each level of a factor.*

Usage

```
split_fac(fac, prefix=paste(deparse(substitute(NES.year.fac)), '.', sep=''), env=.GlobalEnv, ...
```

Arguments

fac	factor variable
prefix	substring that begins the name of each created dummy variable
env	environment in which the dummy variables are created
...	arguments passed to assign()

Author(s)

John G. Bullock

sumNA — *Calculate sum of vector after omitting NA values*

Usage

```
sumNA(x)
```

Arguments

```
x
```

table.sep — *helper function for latable()*

Usage

```
table.sep(table, separator = "&", sig.digits = 2)
```

Arguments

```
table
separator
sig.digits
```

varNA — *Calculate variance of vector after omitting NA values*

Usage

```
varNA(x)
```

Arguments

```
x
```

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