Package 'partialling.out'

October 17, 2025

Title Residuals from Partial Regressions

Version 0.2.0

Description Creates a data frame with the residuals of partial regressions of the main explanatory variable and the variable of interest. This method follows the Frisch-Waugh-Lovell theorem, as explained in Lovell (2008) <doi:10.3200/JECE.39.1.88-91>.

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BugReports https://github.com/ropensci/partialling.out/issues/

Suggests tinytest, tinysnapshot, knitr, rmarkdown, palmerpenguins, tinytable, fwlplot, tsibble, units, purrr, fontquiver, rsvg, svglite

Config/testthat/edition 3

Encoding UTF-8

RoxygenNote 7.3.2

VignetteBuilder knitr

Imports glue, lifecycle, rlang, fixest, lfe, stats, tinyplot

URL https://docs.ropensci.org/partialling.out/, https://github.com/ropensci/partialling.out/

NeedsCompilation no

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Depends R (>= 4.1.0)

Repository CRAN

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Contents

`partialling_out` *partialling_out: partialling out variable of interest and main*

Description

Creates a data.frame of the residualised main explanatory variable and, if wanted, variable of interest of a linear or fixed effects model

Usage

```
partialling_out(model, data, weights, both, na.rm, ...)
```

Arguments

`model`	object for which we want to residualise variables
`data`	data.frame used in the original model. Using different data will return unexpected results or an error.
`weights`	a numeric vector for weighting the partial models. Length must be equal to number of rows of `data`
`both`	if `TRUE` will residualise both the variable of interest and the first explanatory variable in the model. If `FALSE`, only the latter. Set to `TRUE` by default
`na.rm`	if `TRUE` will remove observations with NA before any models are run. If `FALSE`, the underlying `lm`, `feols`, or `felm` will remove NA values but errors may arise if weights are used.
`...`	Any other lm, feols, or felm parameters that will be passed to the partial regressions

Details

The function regresses the main (i.e. first in the model) explanatory variable and the variable of interest (if parameter `both` is set to `TRUE`) against all other control variables and fixed effects and returns the residuals in a data.frame

Will accept lm, felm (lfe package), and feols (fixest package) objects

Value

a data.frame with the (residualised) variable of interest and residualised main explanatory variable

Examples

```
library(palmerpenguins)
library(fixest)
model <- feols(bill_length_mm ~ bill_depth_mm | species + island,
               data = penguins)
partial_df <- partialling_out(model, penguins, both = TRUE)
```

`plot_partial_residuals`

plot_partial_residuals: scatterplot of partial residuals

Description

Function for plotting partial residuals Uses `tinyplot` as backend

Usage

```
plot_partial_residuals(x, add_lm = TRUE, quantile = FALSE, probs = 0.02, ...)
```

Arguments

`x`	a partial_residuals objects from `partialling_out()`
`add_lm`	if TRUE, a `lm` will be plotted
`quantile`	if TRUE, will plot only the mean values of the quantiles of the mean explanatory variable specified by `probs`
`probs`	numeric vector of length one that specifies the number of quantiles to be computed if `quantile` is TRUE. by default, 0.02, which will give 50 quantiles.
`...`	Any other `tinyplot::plt()` params

Value

invisibly, x

Examples

```
library(palmerpenguins)
library(fixest)
model <- feols(bill_length_mm ~ bill_depth_mm | species + island,
               data = penguins)
partial_df <- partialling_out(model, penguins, both = TRUE)
plot_partial_residuals(partial_df)
```

Index