Package 'altR2'

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Version 1.1.0

Title Alternative Estimators to Adjusted R-Squared

Description Provides alternatives to the normal adjusted R-squared estimator for the estimation of the multiple squared correlation in regression models, as fitted by the lm() function. The alternative estimators are described in Karch (2020) <DOI:10.1525/collabra.343>.

Depends R (>= 3.5.0)

Imports gsl (>= 1.9-10.3), methods, purrr (>= 0.3.2)

Suggests testthat (>= 2.1.0), MASS (>= 7.3-51.1)

License GPL-2

URL https://github.com/karchjd/altR2

BugReports https://github.com/karchjd/altR2/issues

RoxygenNote 7.3.2

NeedsCompilation no

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Repository CRAN

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Contents

altR2 *Obtain estimates of the multiple squared correlation*

Description

Returns different estimates of the multiple squared correlation.

Usage

```
altR2(lmOut)
```

Arguments

lmOut	object of class "lm" as returned by the function lm

Value

A named vector with the different estimates

Examples

```
## Annette Dobson (1990) "An Introduction to Generalized Linear Models".
## Page 9: Plant Weight Data.
ctl <- c(4.17, 5.58, 5.18, 6.11, 4.50, 4.61, 5.17, 4.53, 5.33, 5.14)
trt <- c(4.81, 4.17, 4.41, 3.59, 5.87, 3.83, 6.03, 4.89, 4.32, 4.69)
group <- gl(2, 10, 20, labels = c("Ctl", "Trt"))
weight <- c(ctl, trt)
lm.D9 <- lm(weight ~ group)
estimates <- altR2(lm.D9)
```

estimate_adj_R2 *Obtain estimates of the multiple squared correlation*

Description

Returns different estimates of the multiple squared correlation.

Usage

```
estimate_adj_R2(Rsquared, N, p)
```

Arguments

Rsquared	R-squared value
N	Number of observations
p	Number of predictors

Value

A named vector with the different estimates

Examples

```
## Annette Dobson (1990) "An Introduction to Generalized Linear Models".
## Page 9: Plant Weight Data.
ctl <- c(4.17, 5.58, 5.18, 6.11, 4.50, 4.61, 5.17, 4.53, 5.33, 5.14)
trt <- c(4.81, 4.17, 4.41, 3.59, 5.87, 3.83, 6.03, 4.89, 4.32, 4.69)
group <- gl(2, 10, 20, labels = c("Ctl", "Trt"))
weight <- c(ctl, trt)
lm.D9 <- lm(weight ~ group)
estimates <- estimate_adj_R2(summary(lm.D9)$r.squared, length(weight), 1)
```

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