Package 'HanStat'

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Type Package

Title Package for Easy Interpretation of Statistical Methods

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URL https://github.com/KonradKrahl/HanStat

BugReports https://github.com/KonradKrahl/HanStat

Description A simple and time saving multiple linear regression function (OLS) with interpretation, optional bootstrapping, effect size calculation and all tested requirements.

Depends R (>= 4.1.0)

Imports boot, car, crayon, ggplot2, lmtest, olsrr, ggpubr, devtools

License GPL (>= 3)

Encoding UTF-8

LazyData true

RoxygenNote 7.2.3

Language en-US

Suggests testthat (>= 3.0.0)

Config/testthat/edition 3

NeedsCompilation no

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Repository CRAN

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`data` *Randomized data for testing models Contains 5 Variables, one dependent, 4 independent. The fourth independent is correlated with the dependent*

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Usage

```
data(data)
```

Format

data.frame

Source

https://www.hanseatic-statistics.de

References

K.T.Krahl (2023)

Examples

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data(data)
LinReg('dv',c('iv_1','iv_2','iv_3'),data=data,BS=FALSE,NBS=1000,OC=FALSE,plot=TRUE)
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`HansStat Data` *Radomized data for testing models*

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Examples

```
data(data)


LinReg('dv',c('iv_1','iv_2','iv_3','iv_4'),data=data, BS = TRUE, NBS=1000, OC = TRUE, plot=TRUE)
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LinReg *LinReg*

Description

A simple multiple linear regression function (OLS) and it's requirements. The function automatically interprets the results, creates plots and provides an indication of violations of assumptions. It also calculates the effect sizes of the models. The bootstrapping method can also be used.

Usage

```
LinReg(dv, iv, data, BS, NBS, OC, plot)
```

Arguments

dv	dependent variable name as a string
iv	a string vector with the names of the independent variables, separated by commas, use c(iv_1,iv_2...iv_n)
data	a data frame containing the variables
BS	Bootstrapping method, set BS to TRUE or FALSE, if FALSE Number of bootstraps are ignored
NBS	number of random samples used for bootstrapping
OC	Outlier controll, set OS to TRUE or FALSE, to use cooks distance to exclude outliers, if BS==TRUE, OS must be FALSE
plot	set plot to TRUE to create simple scatterplots of correlation between variables

Value

the results of linear regression, plots and all requirements plus an interpretation & conclusion about the violations

Source

https://www.hanseatic-statistics.de

Examples

```
m<-LinReg('dv',c('iv_1','iv_2','iv_3'),data=data,BS=FALSE,NBS=1000,OC=FALSE,plot=TRUE)
print(m$Results)
print(m$Require)
print(m$Plots)
```

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