# Package: HanStat (via r-universe)

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**Type** Package

**Title** Package for Easy Interpretation of Statistical Methods

**Version** 0.90.0

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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

**Roxygen** list(markdown = TRUE)

**Language** en-US

**Suggests** testthat (>= 3.0.0)

**Config/testthat/edition** 3

**Repository** https://konradkrahl.r-universe.dev

**RemoteUrl** https://github.com/konradkrahl/hanstat

**RemoteRef** HEAD

**RemoteSha** 48cecf8aa3934a05882c5c25d553734b45abfb88

## Contents

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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