

Package ‘mro’

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Type Package

Title Multiple Correlation

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Description

Computes multiple correlation coefficient when the data matrix is given and tests its significance.

Depends R (>= 3.1.0), MASS, matrixcalc

License GPL-2

Encoding UTF-8

LazyData true

RoxygenNote 6.0.1

NeedsCompilation no

Repository CRAN

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mcr *Multiple Correlation*

Description

Computes Mutiple Correlation Coefficient between one variable and a set of variables

Usage

```
mcr(dda, ld, rd, rawdata = T)
```

Arguments

dda	Data
ld	Dependent Variable
rd	vector of independent variables
rawdata	a boolean variable taking F if the input is a correlation matrix T if it is data matrix

Value

Returns the value of Multiple Correlation between dependent and independent variables

Author(s)

Abirami S

Examples

```
## Example 1:
mcr(iris[,-5],1,c(2,3,4)) ## Returns multiple correlation between Sepal.Length
## and the other variables

## Example 2
mu<-c(10,12,13,14)
sig<-matrix(0,4,4)
diag(sig)<-c(2,1,1,3)
da<-MASS::mvrnorm(25,mu,sig)
mcr(da, 2,c(1,3,4)) ## Returns Multiple correlation when the data matrix
## simulated from a quadrivariate normal distribution
## is given as input

## Example 3
da<-var(iris[,-5])
mcr(da,3,c(1,2,4),FALSE) ## Returns multiple correlation between Petal.Width
## and the other variables when the correlation matrix
## is given as input
```

`mcr.test`*Multiple Correlation Test of Significance*

Description

Tests the significance of multiple correlation coefficient

Usage

```
mcr.test(x, ld, rd)
```

Arguments

<code>x</code>	Data Matrix or Variance Covariance or Correlation matrix
<code>ld</code>	Label of dependent Variable
<code>rd</code>	Vector of labels of independent variables

Value

a htest class object

Author(s)

Abirami S

Examples

```
## Example
library(MASS)
mu<-c(10,12,13,14)
sig<-matrix(0,4,4)
diag(sig)<-c(2,1,1,2)
da<-mvrnorm(25,mu,sig)
mcr.test(da,1,c(2:4))
```

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