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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R topics documented:

`mcr` *Multiple Correlation*

Description

Computes Mutliple 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 mutliple correlation coefficient

Usage

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

Arguments

x	Data Matrix or Variance Covariance or Correlation matrix
ld	Label of dependent Variable
rd	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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