Package ‘MediaK’

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Type Package
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Title Calculate MeDiA_K Distance
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Description Calculates MeDiA_K (means Mean Distance Association by K-nearest neighbor) in order to detect nonlinear associations.
License GPL
LazyData TRUE
Imports Rcpp (>= 0.11.3)
LinkingTo Rcpp, RcppEigen
NeedsCompilation yes
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R topics documented:

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Media_pvalue functions to calculate pvalue

Description

This function is created to calculate p values about MeDiA_k
Usage

Media_pvalue(iTest,jTest,times,selectvec)

Arguments

iTest  a numeric matrix
jTest  a numeric matrix which has the same rows as iTest
selectvec  an integer vector which contains a series of K values you want to get
times  an integer indicates permutation times

Value

Media_pvalue(iTest,jTest,times,selectvec) return a numeric vectors contains p values based on the selectvec(K value you want to select)

Examples

iTest <- matrix(rnorm(1000),100)
jTest <- matrix(rnorm(200),100)
times <- 100
selectvec <- c(1:10)
Media_pvalue(iTest,jTest,times,selectvec)

RcppExports

Set of functions in example RcppEigen package

Description

These two functions are created to calculate different values about MeDiA_k

Usage

dis_value(iTest,jTest,select)
permute(iTest,jTest,times,selectvec)
RcppExports

Arguments

- `iTest` a numeric matrix
- `jTest` a numeric matrix which has the same rows as `iTest`
- `select` an integer which means get k values you want to get
- `selectvec` an integer vector which contains a series of K values you want to get
- `times` an integer indicates permutation times

Value

- `dis_val(iTest, jTest, select)` returns a distance
- `permute(iTest, jTest, times, selectvec)` return a list contains mean and sd values based on the `selectvec`(K value you want to select)

Examples

```r
iTest <- matrix(rnorm(1000),100)
jTest<- matrix(rnorm(200),100)
select<- 5
times<- 100
selectvec <- c(1:10)
dis_val(iTest, jTest, select)
permute(iTest, jTest, times, selectvec)
```
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