

Package ‘MediaK’

May 7, 2026

Type Package

Date 2015-12-23

Title Calculate MeDiA_K Distance

Version 1.0

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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

Repository CRAN

Date/Publication 2015-12-24 13:46:16

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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

<code>iTest</code>	a numeric matrix
<code>jTest</code>	a numeric matrix which has the same rows as <code>iTest</code>
<code>selectvec</code>	an integer vector which contains a series of K values you want to get
<code>times</code>	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)
```

Arguments

<code>iTest</code>	a numeric matrix
<code>jTest</code>	a numeric matrix which has the same rows as <code>iTest</code>
<code>select</code>	an integer which means get k values you want to get
<code>selectvec</code>	an integer vector which contains a series of K values you want to get
<code>times</code>	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

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

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