Package 'clustertend'

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Type Package

Title Check the Clustering Tendency

Version 1.4

Date 2015-05-17

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Description Calculate some statistics aiming to help analyzing the clustering tendency of given data. In the first version, Hopkins' statistic is implemented.

License GPL (>= 2)

NeedsCompilation no

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`clustertend-package` *Check the Clustering Tendency*

Description

Calculate some statistics aiming to help analyzing the clustering tendency of the given data. In the first version, Hopkins' statistic is implemented.

Details

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Type:	Package
Version:	1.4
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License:	GPL (>= 2)

Preprocess your data into a dataframe or matrix form. Then several statistics about clustering tendency can be calculated. In the fisrt version, we only provided calculating function of Hopkins' statistic.

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References

Lawson, R.G. and Jurs, P.C.(1990) New index for clustering tendency and its application to chemical problems. Journal of Chemical Information and Computer Sciences. (Journal of Chemical Information and Computer Sciences, 1990, 30(1):36-41)

Examples

```
x<-matrix(runif(200,1,100),50,4);
hopkins(x,n=10)
```

`hopkins` *Calculate the Hopkins' statistic*

Description

Calculate the Hopkins' statistic of given data. 'n' can be set to see whether this statistic converges.

Usage

```
hopkins(data, n, byrow = F, header = F)
```

Arguments

`data`	a data frame or a matrix of the sample
`n`	an integer, the number of points selected from sample space which is also the number of points selected from the given sample(data)
`byrow`	logical. If FALSE(the default)the variables is taken by columns, otherwise the variables is taken by rows.
`header`	logical. If FALSE(the default) the first column(or row) will be deleted in the calculation

Details

Sample data must be preprocessed into dataframe or matrix form before given as the value of parameter "data".

Value

the number of Hopkins' statistic will be shown in the CW.

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References

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Index