

Package ‘clustertend’

August 19, 2023

Type Package

Title Check the Clustering Tendency

Version 1.7

Description Calculate some statistics aiming to help analyzing the clustering tendency of given data. In the first version, Hopkins statistic is implemented. See Hopkins and Skellam (1954) <[doi:10.1093/oxfordjournals.aob.a083391](https://doi.org/10.1093/oxfordjournals.aob.a083391)>.

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RoxygenNote 7.2.3

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hopkins *Calculate Hopkins statistic.*

Description

Calculate Hopkins statistic of given data.

Usage

```
hopkins(X, n = ceiling(nrow(X)/10))
```

Arguments

X	Data (matrix or data.frame) to check clusterability.
n	The number of rows to sample from X. The default is 1/10th the number of rows of X.

Details

Note: Package `clustertend` is deprecated. Use package `hopkins` instead.

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

Value

The value returned is actually 1-Hopkins statistic.

Author(s)

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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*. 30(1):36-41.

Examples

```
set.seed(1)
hopkins(iris[,-5], n=15)
```

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