

Package ‘NMI’

July 21, 2025

Title Normalized Mutual Information of Community Structure in Network

Version 2.0

Description Calculates the normalized mutual information (NMI) of two community structures in network analysis.

Depends R (>= 3.2.2)

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Encoding UTF-8

LazyData true

RoxygenNote 5.0.1

NeedsCompilation no

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NMI	<i>Normalized Mutual Information of Community Structure in Network</i>
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Description

Calculates the normalized mutual information (NMI) of two community structures in network analysis.

Usage

NMI(X, Y)

Arguments

X	a data frame or matrix whose first column is the node id and the second column is module
Y	a data frame or matrix whose first column is the node id and the second column is module

Value

value	value of NMI
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Examples

```
# Suppose X and Y are exactly the same
X<-data.frame(c(1,2,3),c(2,1,1))
Y<-X
# There NMI is 1
NMI(X,Y)

# Suppose X and Y are completely independent
X<-data.frame(c(1,2,3),c(2,1,1))
Y<-data.frame(c(5,6,7),c(2,1,1))
# There NMI is 0
NMI(X,Y)
```

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