

# Package: NMI (via r-universe)

August 27, 2024

**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)

**License** GNU General Public License version 2

**Encoding** UTF-8

**LazyData** true

**RoxygenNote** 5.0.1

**NeedsCompilation** no

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**Date/Publication** 2016-08-20 15:36:57

**Repository** <https://terrytwu.r-universe.dev>

**RemoteUrl** <https://github.com/cran/NMI>

**RemoteRef** HEAD

**RemoteSha** fd4f1f842771331a549fa679434f644a9bfdf850

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**NMI***Normalized Mutual Information of Community Structure in Network*

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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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