## Package 'MinTriadic'

July 21, 2025

Type Package

Title Extension to the 'Lolog' Package for 'Triadic' Network Statistics

Version 1.0.0

Date 2025-06-08

**Description** Provides an extension to the 'lolog' package by introducing the minTriadicClosure() statistic to capture higher-order interactions among triplets of nodes. This function facilitates improved modelling of group formations and 'triadic' closure in networks. A smoothing parameter has been incorporated to avoid numerical errors.

**License** GPL (>= 3)

**Imports** Rcpp (>= 0.10.0), lolog

Suggests network, rmarkdown, knitr, sna, testthat

LinkingTo Rcpp, lolog, BH

NeedsCompilation yes

Encoding UTF-8

RoxygenNote 7.3.2

VignetteBuilder knitr

Author Lekshmy Hema Nair [aut, cre]

Maintainer Lekshmy Hema Nair <lekshmyrohit25@gmail.com>

**Repository** CRAN

Date/Publication 2025-06-23 10:30:05 UTC

### Contents

minTriadicClosure	 	 	 2

3

Index

minTriadicClosure minTriadicClosure

#### Description

A smoothed triadic-closure statistic for LOLOG models.

#### Usage

```
minTriadicClosure(triadDegree, smoothing_k = 1)
```

#### Arguments

triadDegree	Integer threshold for triangle count.
smoothing_k	Numeric smoothing parameter.

#### Details

Returns a registered LOLOG change statistic that smoothly counts how many nodes are in at least 'triadDegree' triangles, using a smoothing parameter.

#### Value

A LOLOG change statistic object.

#### Examples

```
registerMinTriadicClosure() # call once to register the C++ class
stat <- minTriadicClosure(2, 1.5)
print(stat)
```

# Index

minTriadicClosure, 2