Package ‘npst’

February 20, 2015

Type Package
Title Generalization of Hewitt's Seasonality Test
Version 2.0
Date 2014-02-09
Author Roland Rau
Maintainer Roland Rau <roland.rau@gmail.com>
Suggests parallel
License GPL-2
LazyLoad yes
NeedsCompilation yes
Repository CRAN
Date/Publication 2014-02-10 16:40:52

R topics documented:

npst-package ......................................................... 1
npst ................................................................. 2

Index

npst-package npst

Description

Details
Author(s)

Roland Rau
Maintainer: Roland Rau <roland.rau@gmail.com>

References


Examples

```r
npst(indata=c(1:6, 12:7), peak=6, repts=100000,
    whole.distribution=FALSE, siglevels=c(0.01, 0.05, 0.1),
    PARALLEL=FALSE)
```

Description


Usage

```r
npst(indata=NULL, long=12, peak=6, repts=100000,
    whole.distribution=FALSE, siglevels=c(0.001,0.01,0.05,0.1),
    PARALLEL=FALSE, nodes=1)
```
Arguments

indata  A numeric vector whose elements are the empirical number of events (e.g. deaths). The length of the data is typically 12 (=months), 52 or 53 (weeks), or 365 or 366 (days). Not providing 'indata' is also okay (slightly different output then).

long  The basic length of the data analyzed, i.e. if we have monthly data, it would be 12 (hence it is an integer scalar). If 'indata' are provided, argument 'long' is calculated based on argument 'indata'.

peak  Length of peak period (integer scalar). For instance, if we assume that the 'peak season' lasts six months for monthly data, 'peak' would be six (=default value).

repts  How many Monte Carlo simulation runs should be conducted (integer scalar)?

whole.distribution  Argument 'whole.distribution' indicates whether the whole distribution should be returned (=TRUE) or only the critical values (=FALSE) (Boolean Scalar).

siglevels  For which significance levels should the corresponding required rank sums be returned. Default settings are the 'typical' significance levels of 0.001, 0.01, 0.05, and 0.1 (numeric vector).

PARALLEL  If TRUE, multi-core Monte Carlo Simulation; otherwise single-core Simulation (Boolean Scalar).

nodes  Specify on how many nodes the estimation should run (default=1). Only active if argument PARALLEL=TRUE.

Value

maximum.rank.sum  The maximum rank sum theoretically possible with the given data (integer scalar)

observed  The observed maximum rank sum (with the given data) (integer scalar)

observed.p.value  What is the p-value corresponding to the observed maximum rank sum (numeric scalar)

critical.values  What are the required rank sums for the entered significance levels (numeric data.frame)?

distribution  ONLY IF whole.distribution=TRUE: A numeric data.frame specifying all possible rank-sums and their associated p-values.

Author(s)

Roland Rau

References


Examples

```r
npst(indata=c(1:6L, 12:7), peak=6, reps=100000,
   whole.distribution=FALSE, siglevels=c(0.01, 0.05, 0.1),
   PARALLEL=FALSE)
```
Index

*Topic nonparametric
  npst, 2

*Topic package
  npst-package, 1

npst, 2
npst-package, 1