Package ‘OBL’

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Type Package
Title Optimum Block Length
Version 0.2.1
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Description Obtain optimum block from Non-overlapping Block Bootstrap method.
Depends R (>= 4.2.0)
Imports forecast, foreach, dplyr, forcats, ggplot2, utils, stats, tibble
License GPL (>= 2)
Encoding UTF-8
RoxygenNote 7.1.2
LazyData true
Suggests knitr, rmarkdown
VignetteBuilder knitr
NeedsCompilation no
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Repository CRAN
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*OBL: Optimal Block Length Compute Optimal Block Length for Non-overlapping, Overlapping, Circular Block, tapered moving, and tapered circular Block Bootstrap method*

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**Description**

OBL: Optimal Block Length

Compute Optimal Block Length for Non-overlapping, Overlapping, Circular Block, tapered moving, and tapered circular Block Bootstrap method

**Usage**

```r
blockboot(
  ts,
  R,
  seed,
  n_cores,
  methods = c("optnbb", "optmbb", "optcbb", "opttmbb", "opttcbb")
)
```

```r
lolliblock(
  ts,
  R,
  seed,
  n_cores,
  methods = c("optnbb", "optmbb", "optcbb", "opttmbb", "opttcbb")
)
```

**Arguments**

- **ts**  
  univariate time series
- **R**  
  number of resample
- **seed**  
  RNG seed
- **n_cores**  
  number of core(s) to be used on your operating system
- **methods**  
  "optnbb", "optmbb", "optcbb", "opttmbb", "opttcbb"

**Value**

A data frame get printed to the console

A data frame get printed to the console
Functions

- `blockboot`: package helps to obtain the optimal block length of a time series data
- `lolliblock`: package helps to obtain the optimal block length of a time series data

Examples

```r
set.seed(289805)
ps <- arima.sim(n = 3, model = list(ar = 0.8, order = c(1, 0, 0)), sd = 1)
blockboot(ts = ts, R = 2, seed = 6, n_cores = 1)

set.seed(289805)
ps <- arima.sim(n = 3, model = list(ar = 0.8, order = c(1, 0, 0)), sd = 1)
lolliblock(ts = ts, R = 2, seed = 6, n_cores = 1)
```

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### Description

`arima.sim` returns the sum of all the values present in its arguments.

### Usage

`ts`

### Format

A time series data with 10 rows and 1 variables:

- **price**: price, in US dollars
- **carat**: weight of the diamond, in carats ...

### Details

A dataset containing simulated univariate time series of 10 `ts`.

### Value

It returns a univariate time series data. It could be a vector.

### Source

Simulated data generated with the following code:

```r
set.seed(289805) ts <- stats::arima.sim(n = 10, model = list(ar = 0.8, order = c(1, 0, 0)), sd = 1)
```

### Examples

```r
set.seed(289805)
ps <- stats::arima.sim(n = 10, model = list(ar = 0.8, order = c(1, 0, 0)), sd = 1)
```
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