

# 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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## R topics documented:

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| blockboot | <i>OBL: Optimal Block Length Compute Optimal Block Length for Non-overlapping, Overlapping, Circular Block, tapered moving, and tapered circular Block Bootstrap method</i> |
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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

OBL: Optimal Block Length

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### Usage

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

```
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 operaterating 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

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

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ts

*Ten (10) simulated univariate time series data.*

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

## Examples

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

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