Package ‘Records’

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Type        Package
Title       Record Values and Record Times
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Author      Magdalena Chrapek
Maintainer  Magdalena Chrapek <Magdalena.Chrapek@ujk.edu.pl>
Description Functions for generating k-record values and k-record times
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R topics documented:

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lower.record.times     Sample Lower k-Record Times

Description

  Produces lower k-record times for a given sample
Usage

lower.record.times(sqnc, k)

Arguments

sqnc numeric vector of data whose lower k-record times are wanted
k an integer between 1 and length(sqnc) indicating the rank of lower k-record times

Value

a vector of lower k-record times associated with a given sample

Note

see Note in upper.record.values

Author(s)

Magdalena Chräpek

References


See Also

lower.record.values

Examples

set.seed(10)
x <- rnorm(100)
lower.record.times(sqnc = x, k = 1) #simply lower record times
lower.record.times(sqnc = x, k = 3)
upper.record.times

Arguments

- **sqnc**: numeric vector of data whose lower k-record values are wanted
- **k**: an integer between 1 and length(sqnc) indicating the rank of lower k-record values

Value

- a vector of lower k-record values associated with a given sample

Note

- see **Note** in upper.record.values

Author(s)

- Magdalena Chrapek

References


See Also

- lower.record.times

Examples

```r
set.seed(10)
x <- rnorm(100)
lower.record.values(sqnc = x, k = 1)  # simply lower record values
lower.record.values(sqnc = x, k = 3)
```

upper.record.times

Sample Upper k-Record Times

Description

- Produces upper k-record times for a given sample

Usage

```r
upper.record.times(sqnc, k)
```

Arguments

- **sqnc**: numeric vector of data whose upper k-record times are wanted
- **k**: an integer between 1 and length(sqnc) indicating the rank of upper k-record times
upper.record.values

Value

a vector of upper k-record times associated with a given sample

Note

see Note in upper.record.values

Author(s)

Magdalena Chrapek

References


See Also

upper.record.values

Examples

set.seed(10)
x <- rnorm(100)
upper.record.times(sqnc = x, k = 1) # simply upper record times
upper.record.times(sqnc = x, k = 3)

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upper.record.values  Sample Upper k-Record Values

Description

Produces upper k-record values for a given sample

Usage

upper.record.values(sqnc, k)

Arguments

sqnc  numeric vector of data whose upper k-record values are wanted
k  an integer between 1 and length(sqnc) indicating the rank of upper k-record values

Value

a vector of upper k-record values associated with a given sample
**Note**

The notion of the k-record value was introduced by Dziubdziela and Kopocinski (1976). k-record value is a generalization of the record value in the meaning of such value which is larger (upper record value) or smaller (lower record value) than all previous observations.

Similarly, the k-record time is the extension of record time, that is the moment in which the record value is observed.

**Author(s)**

Magdalena Chrapek

**References**


**See Also**

*upper.record.values*

A similar functions (for upper 1-record values only) are *records* in package *evir* and *n.records* in package *iid.test*

**Examples**

```r
set.seed(10)
x <- rnorm(100)
upper.record.values(sqnc = x, k = 1)  # simply upper record values
upper.record.values(sqnc = x, k = 3)
```
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