Package 'Records'

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Type Package

Title Record Values and Record Times

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Description Functions for generating k-record values and k-record times

License GPL (>= 2)

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R topics documented:

`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 Chrapek

References

Dziubdziela, W., Kopocinski, B. (1976) Limiting properties of k-th record values, *Zastos. Mat.*, **15**, 187–190

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)
```

---

lower.record.values *Sample Lower k-Record Values*

Description

Produces lower k-record values for a given sample

Usage

```
lower.record.values(sqnc, k)
```

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

Dziubdziela, W., Kopocinski, B. (1976) Limiting properties of k-th record values, *Zastos. Mat.*, **15**, 187–190

See Also

`lower.record.times`

Examples

```
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

```
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

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

Dziubdziela, W., Kopocinski, B. (1976) Limiting properties of k-th record values, *Zastos. Mat.*, **15**, 187–190

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)
```

---

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

Dziubdziela, W., Kopocinski, B. (1976) Limiting properties of k-th record values, *Zastos. Mat.*, **15**, 187–190

See Also

`upper.record.times`

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

Examples

```
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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