Package: quantsig (via r-universe)

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Type Package

Title Sigmoidal Quantile Function Estimator

Version 0.1.0

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Description A sigmoidal quantile function estimator based on a newly
defined generalized expectile function. The generalized
sigmoidal quantile function can estimate quantiles beyond the
range of the data, which is important for certain applications
given smaller sample sizes. The package is based on the method
introduced in Hutson (2024)
<doi:10.1080/03610918.2022.2032161>.

License GPL-3

Encoding UTF-8

NeedsCompilation no

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Repository https://hy-roswell.r-universe.dev

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Description

This function implements the sigmoidal quantile function estimator, which is a smooth nonparametric quantile function estimator based on a newly defined generalized expectile function.

Usage

```
quantsig(x, p)
```

Arguments

x	a numeric whose sample quantiles are wanted.
p	the probability with values in (0,1).

Value

The estimated quantile.

Author(s)

Alan Hutson, Han Yu

References

Hutson AD. The generalized sigmoidal quantile function. Communications in Statistics-Simulation and Computation. 2024 Feb 1;53(2):799-813.

Examples

```
x <- c(1, 2, 3, 4, 5, 6, 7, 8, 8, 9)
quantsig(x, 0.5)
```

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