

Package ‘ChernoffDist’

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Type Package

Title Chernoff's Distribution

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Description Computes Chernoff's distribution based on the method in Piet Groenboom & Jon A Wellner (2001) Computing Chernoff's Distribution, Journal of Computational and Graphical Statistics, 10:2, 388-400, <doi:10.1198/10618600152627997>. Chernoff's distribution is defined as the distribution of the maximizer of the two-sided Brownian motion minus quadratic drift. That is, $Z = \operatorname{argmax} (B(t)-t^2)$.

License GPL-3

Encoding UTF-8

RoxygenNote 7.2.3

Imports gsl

NeedsCompilation no

Repository CRAN

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dChern *Density function of Chernoff's distribution*

Description

Computes the density of Chernoff's distribution.

Usage

dChern(x)

Arguments

x evaluation point of the density.

Value

The function returns Chernoff's density evaluated at x.

Examples

dChern(0)

pChern *Cumulative distribution function of Chernoff's distribution*

Description

Computes the CDF of Chernoff's distribution.

Usage

pChern(q)

Arguments

q evaluation point of the distribution function.

Value

The function returns Chernoff's distribution function evaluated at q.

Examples

pChern(0)

qChern

Quantile function of Chernoff's distribution

Description

Computes the quantiles of Chernoff's distribution.

Usage

qChern(p)

Arguments

p evaluation point of the quantile function.

Value

The function returns Chernoff's quantile function evaluated at p.

Examples

qChern(0.5)

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