Package ‘truncnorm’

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Version 1.0-8

Title Truncated Normal Distribution

Description Density, probability, quantile and random number
generation functions for the truncated normal distribution.

URL https://github.com/olafmersmann/truncnorm

BugReports https://github.com/olafmersmann/truncnorm/issues

Depends R (>= 3.4.0)

Suggests testthat

License GPL (>= 2)

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The Truncated Normal Distribution

Description

Density, distribution function, quantile function, random generation and expected value function for the truncated normal distribution with mean equal to 'mean' and standard deviation equal to 'sd'.

Usage

dtruncnorm(x, a=-Inf, b=Inf, mean = 0, sd = 1)
ptruncnorm(q, a=-Inf, b=Inf, mean = 0, sd = 1)
qtruncnorm(p, a=-Inf, b=Inf, mean = 0, sd = 1)
rtruncnorm(n, a=-Inf, b=Inf, mean = 0, sd = 1)
etruncnorm(a=-Inf, b=Inf, mean=0, sd=1)
vtruncnorm(a=-Inf, b=Inf, mean=0, sd=1)

Arguments

- x, q: vector of quantiles.
- p: vector of probabilities.
- n: number of observations. If 'length(n) > 1', the length is taken to be the number required.
- a: vector of lower bounds. These may be -Inf.
- b: vector of upper bounds. These may be Inf.
- mean: vector of means.
- sd: vector of standard deviations.

Details

If mean or sd are not specified they assume the default values of 0 and 1, respectively. The values of a, b, mean and sd are recycled as needed.

The numerical arguments other than n are recycled to the length of the result.

Value

'dtruncnorm' gives the density, 'ptruncnorm' gives the distribution function, 'qtruncnorm' gives the quantile function, 'rtruncnorm' generates random deviates, 'etruncnorm' gives the expected value and 'vtruncnorm' the variance of the distribution.

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