

Package ‘distcrete’

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Title Discrete Distribution Approximations

Version 1.0.3

Description Creates discretised versions of continuous distribution functions by mapping continuous values to an underlying discrete grid, based on a (uniform) frequency of discretisation, a valid discretisation point, and an integration range. For a review of discretisation methods, see Chakraborty (2015) <[doi:10.1186/s40488-015-0028-6](https://doi.org/10.1186/s40488-015-0028-6)>.

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LazyData true

URL <https://github.com/reconhub/distcrete>

BugReports <https://github.com/reconhub/distcrete/issues>

Suggests knitr, rmarkdown, testthat

RoxygenNote 6.0.1

VignetteBuilder knitr

NeedsCompilation no

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distcrete

Discretise a distribution

Description

Discretise a distribution.

Usage

```
distcrete(name, interval, ..., w = 0.5, anchor = 0)
```

Arguments

name	The name of a distribution function (e.g., norm, gamma). The distribution must have a cdf function (e.g., pnorm) and a quantile function (e.g., qnorm) defined.
interval	The interval to discretise the interval onto.
...	Parameters to cdf. Can be matched positionally or by name.
w	How to weight the endpoints; must be between 0 and 1. If 0.5 then integration happens centred around the interval, if 0 floor, if 1 then ceiling.
anchor	Any location that is a valid x

Author(s)

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Examples

```
library(distcrete)
set.seed(415)
d0 <- distcrete("gamma", 1, shape = 3, w = 0)
d0$d(1:10)
d0$p(c(.1, .5))
d0$q(c(.1, .5))
d0$r(10)
```

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