

Package: DistrFree (via r-universe)

October 23, 2026

Title Transformation Distributions Using distributions3 Infrastructure

Version 0.1-0

Description 'DistrFree()' implements distribution-free linear models as S3 objects. The essential parameters to describe the distribution are stored in a 'data.frame' allowing computation of central moments, score, hessian and more.

Encoding UTF-8

Depends R (>= 4.6.0), distributions3

Imports rlang

Suggests knitr, quarto

VignetteBuilder quarto

License GPL-2 | GPL-3

URL <https://codeberg.org/Thymore/DistrFree>

Config/roxygen2/version 8.1.0

Repository <https://zeileis.r-universe.dev>

Date/Publication 2026-10-23 09:38:58 UTC

RemoteUrl <https://codeberg.org/Thymore/DistrFree>

RemoteRef HEAD

RemoteSha 2cd80409a2bb017696d7cbce7dff52244fbd072d

Contents

DistrFree	2
support.DistrFree	3
Index	4

Description

Create a Distribution-Free Linear Model

Usage

```
DistrFree(
  baseline, location,
  link = c("logit", "probit", "cloglog", "loglog")
)

## S3 method for class 'DistrFree'
mean(x, ...)

## S3 method for class 'DistrFree'
variance(x, ...)

## S3 method for class 'DistrFree'
skewness(x, ...)

## S3 method for class 'DistrFree'
kurtosis(x, ...)

## S3 method for class 'DistrFree'
cdf(d, x, drop = TRUE, elementwise = NULL, ...)

## S3 method for class 'DistrFree'
pdf(d, x, drop = TRUE, elementwise = NULL, ...)

## S3 method for class 'DistrFree'
quantile(x, probs, drop = TRUE, elementwise = NULL, ...)
```

Arguments

baseline	PENDING
location	a numeric vector defining the shift effect on the latent scale
link	a character defining a link function and thus the model and parameter interpretation.
x	an object of class DistrFree.
...	currently unused.

Value

DistrFree() returns an object of class DistrFree with methods.

An object of class DistrFree is a list containing at least the following components:

Examples

```
d <- DistrFree(location = c(0, 2, 4), baseline = seq_len(100))
mean(d)
variance(d)
kurtosis(d)
skewness(d)
```

support.DistrFree	<i>Return the support of the distribution-free linear transformation model</i>
-------------------	--

Description

Return the support of the distribution-free linear transformation model

Usage

```
## S3 method for class 'DistrFree'
support(d, drop = TRUE, ...)
```

Arguments

d	a 'DistrFree' object created by a call to [DistrFree()].
drop	logical. Should the result be simplified to a vector if possible?
...	currently not used.

Value

In case of a single distribution object, a numeric vector of length 2 with the minimum and maximum value of the support (if 'drop = TRUE', default) or a 'matrix' with 2 columns. In case of a vectorized distribution object, a matrix with 2 columns containing all minima and maxima.

Index

`cdf.DistrFree (DistrFree)`, [2](#)

`DistrFree`, [2](#)

`kurtosis.DistrFree (DistrFree)`, [2](#)

`mean.DistrFree (DistrFree)`, [2](#)

`pdf.DistrFree (DistrFree)`, [2](#)

`quantile.DistrFree (DistrFree)`, [2](#)

`skewness.DistrFree (DistrFree)`, [2](#)

`support.DistrFree`, [3](#)

`variance.DistrFree (DistrFree)`, [2](#)