Package 'nev'

September 8, 2025

Title Draw Nested Extreme Value Random Variables

Version 1.0.0.0

Description Draw nested extreme value random variables, which are the variables that appear in the latent variable formulation of the nested logit model.

License GPL (>= 3)

Encoding UTF-8

RoxygenNote 7.3.2

Imports fourierin (>= 0.2.5), pracma (>= 2.4.4), extraDistr (>= 1.10.0)

NeedsCompilation no

Author Wilbur Townsend [aut, cre]

Maintainer Wilbur Townsend <wilbur.townsend@gmail.com>

Repository CRAN

Date/Publication 2025-09-08 19:00:09 UTC

Contents

`rnev` *Draw nested extreme value random variables*

Description

`rnev` draws nested extreme value random variables.

Usage

```
rnev(
  N,
  sigma,
  nests,
  tol = 0.001,
  lower_int = NULL,
  upper_int = NULL,
  lower_eval = -10,
  upper_eval = NULL,
  resolution = 2^15
)
```

Arguments

N	the number of vectors;
sigma	the parameter that measures within-nest correlation, expressed either as a length-num_nests vector or as a scalar (in which case sigma is assumed constant across nests);
nests	a vector of positive integers, indicating the nest of each alternative;
tol	the tolerance on the requirement that the approximate pdf be real-valued, non-negative, and equal to zero at its boundary;
lower_int	an argument passed to fourierin (default depends on sigma);
upper_int	an argument passed to fourierin (default depends on sigma);
lower_eval	an argument passed to fourierin (default = -10);
upper_eval	an argument passed to fourierin (default depends on sigma);
resolution	an argument passed to fourierin (default = 2^15).

Value

An N-by-length(nests) matrix, with each row being a draw from the nested extreme value distribution.

Examples

```
rnev(10, 0.5, c(1,1,2,3))
```

Index