

Package ‘nev’

May 9, 2026

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.

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Encoding UTF-8

RoxygenNote 7.3.2

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

NeedsCompilation no

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| rnev | <i>Draw nested extreme value random variables</i> |
|------|---|

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 <code>fourierin</code> (default depends on sigma); |
| upper_int | an argument passed to <code>fourierin</code> (default depends on sigma); |
| lower_eval | an argument passed to <code>fourierin</code> (default = -10); |
| upper_eval | an argument passed to <code>fourierin</code> (default depends on sigma); |
| resolution | an argument passed to <code>fourierin</code> (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))
```

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