

Package: ndgras (via r-universe)

July 14, 2026

Type Package

Title What the Package Does (Title Case)

Version 0.1.0

Description More about what it does (maybe more than one line).
Continuation lines should be indented.

License What license is it under?

Encoding UTF-8

LazyData true

RoxygenNote 7.3.3

Imports cli, purrr, vctrs

Suggests mipfp, testthat (>= 3.0.0)

Config/testthat/edition 3

Roxygen list(markdown = TRUE)

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

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nd_gras

N-dimensional Generalized RAS (nD-GRAS) method

Description

N-dimensional Generalized RAS (nD-GRAS) method

Usage

```
nd_gras(
    source,
    constraints,
    ...,
    tolerance = 1e-10,
    max_iterations = 1000,
    verbose = FALSE
)
```

Arguments

source	An array to be adjusted.
constraints	A list of constraints created by nd_gras_constraint() .
...	Additional arguments (currently unused).
tolerance	A numeric value indicating the convergence tolerance. Default is 1e-10.
max_iterations	An integer indicating the maximum number of iterations. Default is 1000.
verbose	A logical value indicating whether to print progress messages. Default is FALSE.

Value

A list containing the following components:

target	The adjusted n-dimensional array.
margins	A list of margins used in the constraints.
multipliers	A list of multipliers for each constraint.
iterations	The number of iterations performed.
max_change_multipliers	The maximum absolute difference between multipliers of the last two iterations.
converged	A logical value indicating whether the algorithm converged.

nd_gras_constraint	Create a constraint for the nD-GRAS method
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Description

Create a constraint for the nD-GRAS method

Usage

```
nd_gras_constraint(margin, target)
```

Arguments

margin	An integer vector indicating the dimensions to constrain.
target	An array (or vector) representing the target marginal sums.

Value

A list containing the margin and target.

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