Package 'MPBoost'

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Type Package

Title Treatment Allocation in Clinical Trials by the Maximal Procedure

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Description Performs treatment allocation in two-arm clinical trials by the maximal procedure described by Berger et al. (2003) <doi:10.1002/sim.1538>. To that end, the algorithm provided by Salama et al. (2008) <doi:10.1002/sim.3014> is implemented.

License GPL (>= 2)

Imports Rcpp (>= 1.0.5)

LinkingTo Rcpp, BH

Depends R (>= 4.1.0)

Suggests knitr, pinp, rmarkdown

VignetteBuilder knitr

NeedsCompilation yes

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MPBoost-package *Treatment Allocation in Clinical Trials by the Maximal Procedure*

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Details

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References

Berger, V. W., Ivanova, A., Knoll, M. D. (2003). Minimizing predictability while retaining balance through the use of less restrictive randomization procedures. Statistics in Medicine, 22: 3017-3028. doi:10.1002/sim.1538.

Salama, I., Ivanova, A., Qaqish, B. (2008). Efficient generation of constrained block allocation sequences. Statistics in Medicine, 27, 1421-1428. doi:10.1002/sim.3014.

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mpboost *Compute Allocation Sequences by the Maximal Procedure*

Description

This function produces a treatment assignment sequence generated according to the maximal procedure of Berger et al. (2003). It is an implementation of the algorithm proposed by Salama et al. (2008).

Usage

```
mpboost(N1, N2, MTI = 2L)
```

Arguments

N1	An integer specifying the size of the sample assigned to treatment 1.
N2	An integer specifying the size of the sample assigned to treatment 2.
MTI	An integer specifying the maximum tolerated imbalance (MTI). The default is 2.

Value

A vector of N1 1's and N2 2's representing the allocation sequence.

Note

See the package's vignette for more details and further examples of the use of the function.

References

Berger, V. W., Ivanova, A., Knoll, M. D. (2003). Minimizing predictability while retaining balance through the use of less restrictive randomization procedures. Statistics in Medicine, 22: 3017-3028. doi:10.1002/sim.1538.

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Examples

```
#\donttest{
mpboost(N1 = 25, N2 = 25, MTI = 3)
#}
```

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