

Package ‘HDOMDesign’

October 12, 2022

Version 1.0-1

Title High-Dimensional Orthogonal Maximin Distance Designs

Description Contains functions to construct high-dimensional orthogonal maximin distance designs in two, four, eight, and sixteen levels from rotating the Kronecker product of sub-Hadamard matrices.

License LGPL-2.1

Author Xu He [aut, cre],
Fasheng Sun [aut]

Maintainer Xu He <hexu@amss.ac.cn>

Depends HadamardR

NeedsCompilation yes

Repository CRAN

Date/Publication 2022-06-21 08:50:05 UTC

R topics documented:

HDOMdesign 1

Index 3

HDOMdesign *High-dimensional orthogonal maximin distance designs*

Description

Generates a high-dimensional orthogonal maximin distance designs.

Usage

HDOMdesign(n, p, s)
HDOM2(n, p)
HDOM4(n, p)
HDOM8(n, p)
HDOM16(n, p)

Arguments

n	Number of points.
p	Number of dimensions.
s	Number of levels.

Details

These functions generate high-dimensional orthogonal maximin distance designs. In particular, HDOM2, HDOM4, HDOM8, and HDOM16 generate designs in two, four, eight, and sixteen levels.

Value

The value returned from the function is an n times p matrix giving the experimental design

Examples

```
HDOM2(n=80, p=60)
HDOM4(n=80, p=60)
HDOM8(n=80, p=60)
HDOM16(n=80, p=60)
HDOMdesign(n=80, p=60, s=4)
```

Index

HDOM16 (HDOMdesign), [1](#)
HDOM2 (HDOMdesign), [1](#)
HDOM4 (HDOMdesign), [1](#)
HDOM8 (HDOMdesign), [1](#)
HDOMdesign, [1](#)