

# Package ‘SlicedLHD’

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**Title** Sliced Latin Hypercube Designs

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**Depends** R (>= 4.3.0)

**Description** A facility to generate sliced (orthogonal) Latin hypercube designs with four and five slices. For details about sliced and orthogonal Latin hypercube designs, see Yang, J. F., Lin, C. D., Qian, P. Z., and Lin, D. K. (2013). ``Construction of sliced orthogonal Latin hypercube designs". *Statistica Sinica*, 1117-1130, <doi:10.5705/ss.2012.037>.

**Note** This package is developed as part of ongoing Ph.D. (Agricultural Statistics) thesis research work of first author at ICAR-Indian Agricultural Statistics Research Institute, New Delhi, India.

**License** GPL (>= 2)

**NeedsCompilation** no

**Repository** CRAN

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slh *Sliced Latin hypercube designs*

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**Description**

This function generates a sliced Latin hypercube designs

**Usage**

```
slh(n1, t, q)
```

**Arguments**

n1	number of runs in first slice
t	number of slices, currently 3 or 4 are supported
q	number of columns, between 2 to 6

**Value**

A sliced Latin hypercube design with q columns in  $t(n1-1) + 1$  runs in t slices

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**Examples**

```
slh(5,3,4)
```

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solh *Sliced orthogonal Latin hypercube designs*

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**Description**

This function generates a sliced orthogonal Latin hypercube designs upto 6 columns

**Usage**

```
solh(n1, t, q)
```

**Arguments**

n1	number of runs in first slice
t	number of slices, currently 3 or 4 are supported
q	number of columns, between 2 to 6

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**Value**

A sliced orthogonal Latin hypercube design with  $q$  columns in  $t(n-1) + 1$  runs in  $t$  slices

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**Examples**

`solh(4,5,2)`

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