Package 'SpatialPOP'

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R topics documented:

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spatialPOP	*Generation of Spatial Data with Spatial Coordinates and Spatially Varying Model Parameters*

Description

Generation of Spatial Data with Spatial Coordinates and Spatially Varying Model Parameters

Usage

```
spatialPOP(N, m, xlat, ylong)
```

Arguments

N	integer; population size i.e. N= (m * m)
m	integer
xlat	numeric vector
ylong	numeric vector

Value

returns a dataframe of spatially generated population consist of simulated response variable (i.e. Y) along with their spatial coordinates, spatially varying model parameters and one explanatory variable (i.e. X)

References

1. Leung, Y., Mei, C. L. and Zhang, W. X. (2000). Statistical tests for spatial non-stationarity based on the geographically weighted regression model. Environment and Planning A, 32(1), 9-32.

2. Chao, Liu., Chuanhua, Wei. and Yunan, Su. (2018). Geographically weighted regression model-assisted estimation in survey sampling. Journal of Nonparametric Statistics. <DOI:10.1080/10485252.2018.1499907>.

Examples

```
lattice_points<-spatial_grid(c(1:10),c(1:10))
spatial_data<-spatialPOP(100,10,c(1:10),c(1:10))
```

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spatial_grid	*a uniform two dimensional grid of lattice points*

Description

a uniform two dimensional grid of lattice points

Usage

```
spatial_grid(lat, long)
```

Arguments

lat	numeric vector
long	numeric vector

Value

returns a dataframe of lattice points

Examples

```
spatial_grid(c(1:10),c(1:10))
```

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