Package ‘batteryreduction’

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Type Package

Title An R Package for Data Reduction by Battery Reduction

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Description Battery reduction is a method used in data reduction. It uses Gram-Schmidt orthogonal rotations to find out a subset of variables best representing the original set of variables.

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NeedsCompilation no

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R topics documented:

batteryreduction .................................................. 1

Index 3

batteryreduction  A function for data reduction

Description

Battery reduction is a method used in data reduction. It uses Gram-Schmidt orthogonal rotations to find out a subset of variables best representing the original set of variables.
Usage

batteryreduction(vars, numfact, data)

Arguments

vars a vector of variable names
numfact numeric, number of variables to be selected
data a dataframe

Value

If numfact=1, reda matrix and selected variable are returned. If numfact>=2, reda matrix, rota matrix, and selected variables are returned.

References


Examples

## Generate an example dataset
set.seed(1234)
data<-data.frame(x1=rnorm(n=100, mean=14, sd=7),
x2=rnorm(n=100, mean=3, sd=1),
x3=rpois(n=100, lambda=1),
x4=rpois(n=100, lambda=10),
x5=rgamma(n=100, shape=1),
x6=rgamma(n=100, shape=10))
## Demonstrate batteryreduction
vars<-c('x1','x2','x3','x4','x5','x6')
numfact<-3
batteryreduction(vars, numfact, data)
Index

batteryreduction, 1