

Package ‘StratifiedBalancing’

July 6, 2019

Type Package

Title Stratified Covariate Balancing

Version 0.3.0

Author Farrokh Alemi <falemi@gmu.edu> , Amr ElRafey <aelrafey@gmu.edu>

Maintainer Amr ElRafey <aelrafey@gmu.edu>

Depends R (>= 3.0.1)

Imports bnlearn, plyr

Description Performs Stratified Covariate Balancing with Markov blanket feature selection and use of synthetic cases. See Alemi et al. (2016) <DOI:10.1111/1475-6773.12628>.

Encoding UTF-8

License GPL (>= 2)

NeedsCompilation no

Repository CRAN

Date/Publication 2019-07-05 22:30:03 UTC

R topics documented:

stratify 1

Index 3

stratify *Function Stratify*

Description

This is the main function which performs Stratified Covariate Balancing. It also enables the user to opt for stratifying only the parents in the Markov Blanket of the Treatment variable along with discretization and use synthetic cases to match the data.

Usage

```
stratify(Treatment, Outcome, Matrix, Discretize, Synthetic, Ordered , Markov)
```

Arguments

Treatment	The column number of the Treatment variable
Outcome	The column number of the outcome variable
Matrix	The name of the data.frame or matrix where the data is stored
Discretize	A TRUE/FALSE parameter indicating whether covariates should be discretized or not
Synthetic	A TRUE/FALSE parameter indicating whether synthetic matching should be used or not
Ordered	A TRUE/FALSE parameter indicating whether the variables provided are ordered or not
Markov	A TRUE/FALSE parameter indicating whether Markov Blanket of the treatment should be used for rstratification or not

Examples

```
#create snthetic data
m=matrix(nrow=100,ncol=5,data=0)
for(i in 1:ncol(m)){
  m[,i] = rbinom(100,1,0.5)
}
colnames(m)=c("Var1" , "Var2" , "Var3" , "var4" , "Var5")

## Now use Stratify
g=stratify(4,5,m)
```

Index

stratify, 1