A simple run of SLIDE

2022-11-28

Installing slide

use the following command to install slide

```
#library(devtools)
#install_github("jishnu-lab/SLIDE")
```

Reading Sample data

The sample data is located in the data folder of the github repository

```
y <- readRDS(file="./Data/y.rds")
z <- readRDS(file="./Data/z.rds")
```

Running SLIDE

In this section, we are running slide to capture standalone and interaction terms.

```
library(SLIDE)
library(doParallel)
```

```
## Loading required package: foreach

## Loading required package: iterators

## Loading required package: parallel
```

```
res <- SLIDE(z,y,do_interacts = T,spec=0.5)
```

```
## Loading required package: dplyr

##
## Attaching package: 'dplyr'

## The following objects are masked from 'package:stats':
##
##     filter, lag
```

```
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```
##       selecting marginal variables using method 4 . . .
##                no splitting . . . skipping aggregation
##          final marginal spec: 0.5
##       starting interaction selection . . .
## [1] "Before doing interaction SLIDE"
## [1] "z4"  "z10"
## starting interactions........
##           interaction terms with 4
##                no splitting . . . skipping aggregation
##           interaction terms with 10
##                no splitting . . . skipping aggregation
##               no interaction vars . . . upsilon is marginal variable
## [1] "printig the yhat of each maginals:"
## NULL
##       running knockoffs on marginal/interaction submodels . . .
##                no splitting . . . skipping aggregation
## [1] "upsilon colnames:"
```

```
print("The significant stand alone latent factors:")
```

```
## [1] "The significant stand alone latent factors:"
```

```
print(res$marginal_vars)
```

```
## [1]  4 10
```

```
print("The significant interacting latent factors:")
```

```
## [1] "The significant interacting latent factors:"
```

```
print(res$interaction_vars)
```

```
## [1] "Z4.Z27"
```