Data Dictionary

Contents

1 Power Law Process (PLP)

```
plp = readRDS('PLP.rds')
str(plp)
```

```
## List of 9
##  $ N          : int 255
##  $ K          : num 3
##  $ S          : int 95
##  $ D          : int 10
##  $ id         : int [1:95] 1 1 1 1 1 1 1 1 1 1 ...
##  $ tau        : num [1:95] 11.09 9.62 10.42 8.22 10.38 ...
##  $ event_time : num [1:255] 1.04 3.29 4.15 5.16 6.49 ...
##  $ group_size : int [1:95] 8 7 1 0 6 16 5 2 3 8 ...
##  $ X_predictors:'data.frame':    95 obs. of  3 variables:
##   ..$ x1: num [1:95] 0.6651 -0.0857 0.9146 2.0706 0.8546 ...
##   ..$ x2: num [1:95] 1.9446 0.0545 1.0107 2.6988 1.0172 ...
##   ..$ x3: int [1:95] 0 3 3 1 1 1 2 4 2 2 ...
```

- N: The total number of events
- K: The total number of predictor variables
- S: The total number of shifts,
- D: The total number of drivers,
- id: The index of driver ID for different shifts
- tau: The length of each shift (excluding break rest time)
- event_time: Time to each event
- group_size: The number of events in each shift
- X_predictors: The predictor variable matrix

2 Jump Power Law Process (JPLP)

```
jplp = readRDS('JPLP.rds')
str(jplp)
```

```
## List of 11
##  $ N          : int 162
##  $ K          : num 3
##  $ S          : int 331
##  $ D          : num 10
##  $ id         : int [1:331] 1 1 1 1 1 1 1 1 1 1 ...
##  $ r_trip     : int [1:331] 1 2 3 4 5 1 2 3 4 1 ...
##  $ t_trip_start: num [1:331] 0 1.66 4.71 6.44 9.16 0 2.94 5.29 6.79 0 ...
##  $ t_trip_end  : num [1:331] 1.66 4.71 6.44 9.16 11.09 ...
##  $ event_time  : num [1:162] 2.71 4.57 5.7 6.27 6.66 ...
##  $ group_size  : int [1:331] 0 2 2 1 0 1 1 1 0 1 ...
##  $ X_predictors: num [1:331, 1:3] 0.665 0.665 0.665 0.665 0.665 ...
##   ..- attr(*, "dimnames")=List of 2
##   .. ..$ : chr [1:331] "1" "1.1" "1.2" "1.3" ...
##   .. ..$ : chr [1:3] "x1" "x2" "x3"
```

- N: The total number of events
- K: The total number of predictor variables
- S: The total number of shifts,
- D: The total number of drivers,
- id: The index of driver ID for different shifts
- r_trip: The index of different segments
- t_trip_start: The start time of different segments
- t_trip_end: The end time of different segments
- event_time: Time to each event
- group_size: The number of events in each shift
- X_predictors: The predictor variable matrix