

Burden

Partition enhancers based on distance to TSS based on strict overlap. Basically, her pipeline takes intersections between enhancers and distance ranges, and remove bases of enhancers that are not overlapped.

```
getwd()
```

```
## [1] "/media/yuwen/F/ASD/analysis"
```

```
knitr::opts_chunk$set(warning=FALSE, message=FALSE)
```

read in data with predicted mutation count and observed mutation count

load in functions and datasets that make the functions work

ASD manuscript data, active enhancers

```
predicted
```

```
## [1] 263.9378
```

```
observed
```

```
## [1] 269
```

```
ppois(observed-1, predicted, lower.tail = FALSE)
```

```
## [1] 0.3858124
```

ASD manuscript data, active promoters

```
predicted
```

```
## [1] 104.204
```

```
observed
```

```
## [1] 106
```

```
ppois(observed-1, predicted, lower.tail = FALSE)
```

```
## [1] 0.4431412
```

ASD manuscript data, coding

```
predicted
```

```
## [1] 283.303
```

```
observed
```

```
## [1] 281
```

```
ppois(observed-1, predicted, lower.tail = FALSE)
```

```
## [1] 0.5623313
```

control 693 data, active enhancers

```
predicted
```

```
## [1] 472.6936
```

```
observed
```

```
## [1] 518
```

```
ppois(observed-1, predicted, lower.tail = FALSE)
```

```
## [1] 0.02082082
```

control 693 data, active promoters

```
predicted
```

```
## [1] 197.1034
```

```
observed
```

```
## [1] 178
```

```
ppois(observed-1, predicted, lower.tail = FALSE)
```

```
## [1] 0.9204932
```

control 693 data, coding

```
predicted
```

```
## [1] 477.4718
```

```
observed
```

```
## [1] 473
```

```
ppois(observed-1, predicted,lower.tail = FALSE)
```

```
## [1] 0.5871753
```

ASD scherer data, active enhancers

```
predicted
```

```
## [1] 140.8479
```

```
observed
```

```
## [1] 154
```

```
ppois(observed-1, predicted,lower.tail = FALSE)
```

```
## [1] 0.143544
```

ASD scherer data, active promoters

```
predicted
```

```
## [1] 47.27491
```

```
observed
```

```
## [1] 44
```

```
ppois(observed-1, predicted,lower.tail = FALSE)
```

```
## [1] 0.7026173
```

ASD scherer data, coding

```
predicted
```

```
## [1] 166.937
```

```
observed
```

```
## [1] 165
```

```
ppois(observed-1, predicted, lower.tail = FALSE)
```

```
## [1] 0.5699081
```

control 258 data, active enhancers

```
predicted
```

```
## [1] 82.7004
```

```
observed
```

```
## [1] 101
```

```
ppois(observed-1, predicted, lower.tail = FALSE)
```

```
## [1] 0.02803665
```

control 258 data, active promoters

```
predicted
```

```
## [1] 37.11698
```

```
observed
```

```
## [1] 25
```

```
ppois(observed-1, predicted, lower.tail = FALSE)
```

```
## [1] 0.9853553
```

control 258 data, coding

```
predicted
```

```
## [1] 116.4107
```

```
observed
```

```
## [1] 117
```

```
ppois(observed-1, predicted, lower.tail = FALSE)
```

```
## [1] 0.4905329
```