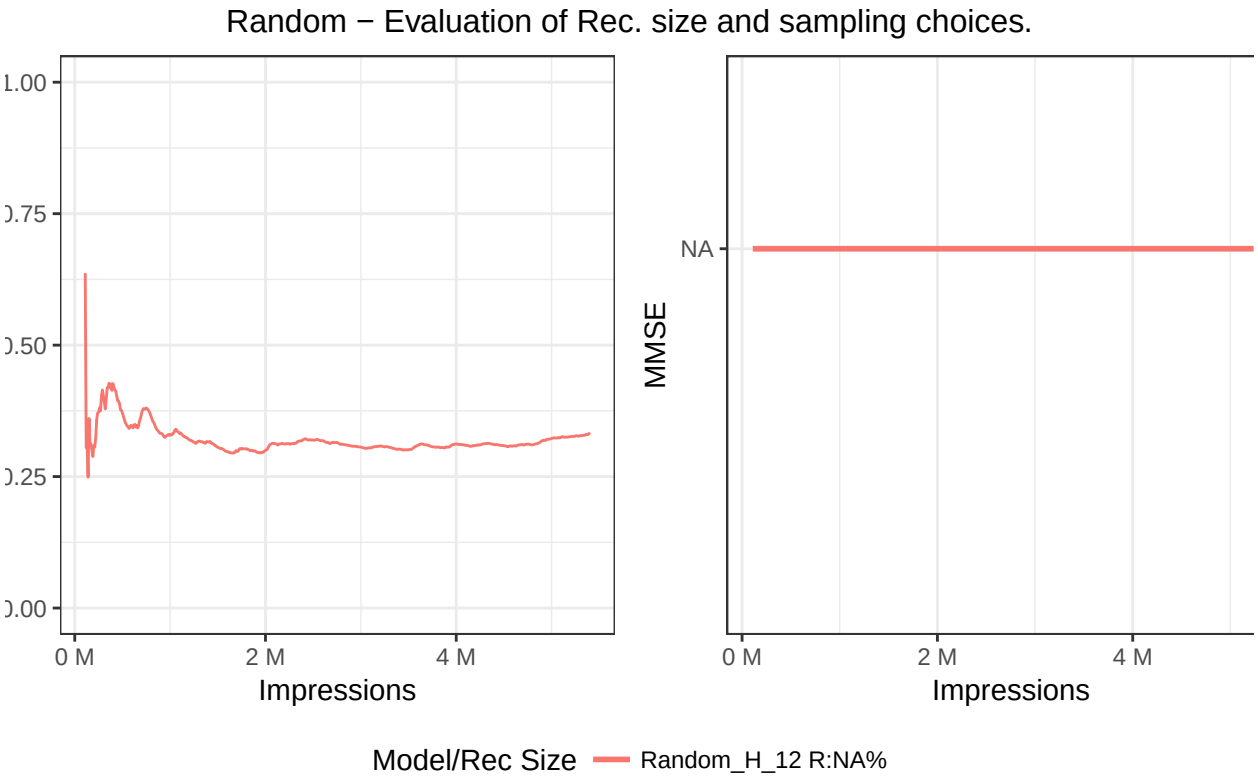
1PlusX_837817

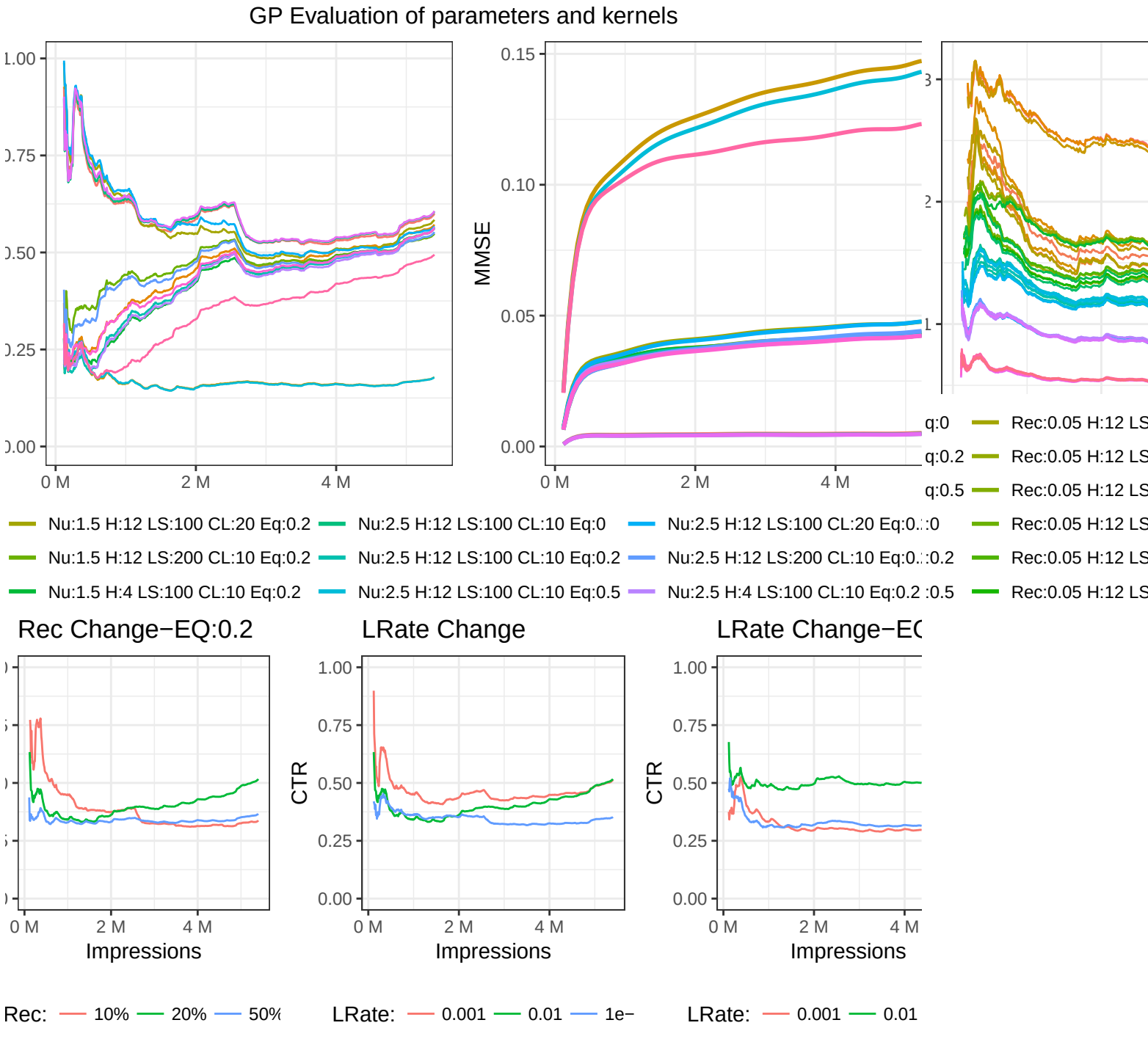
Ana Dimitrova

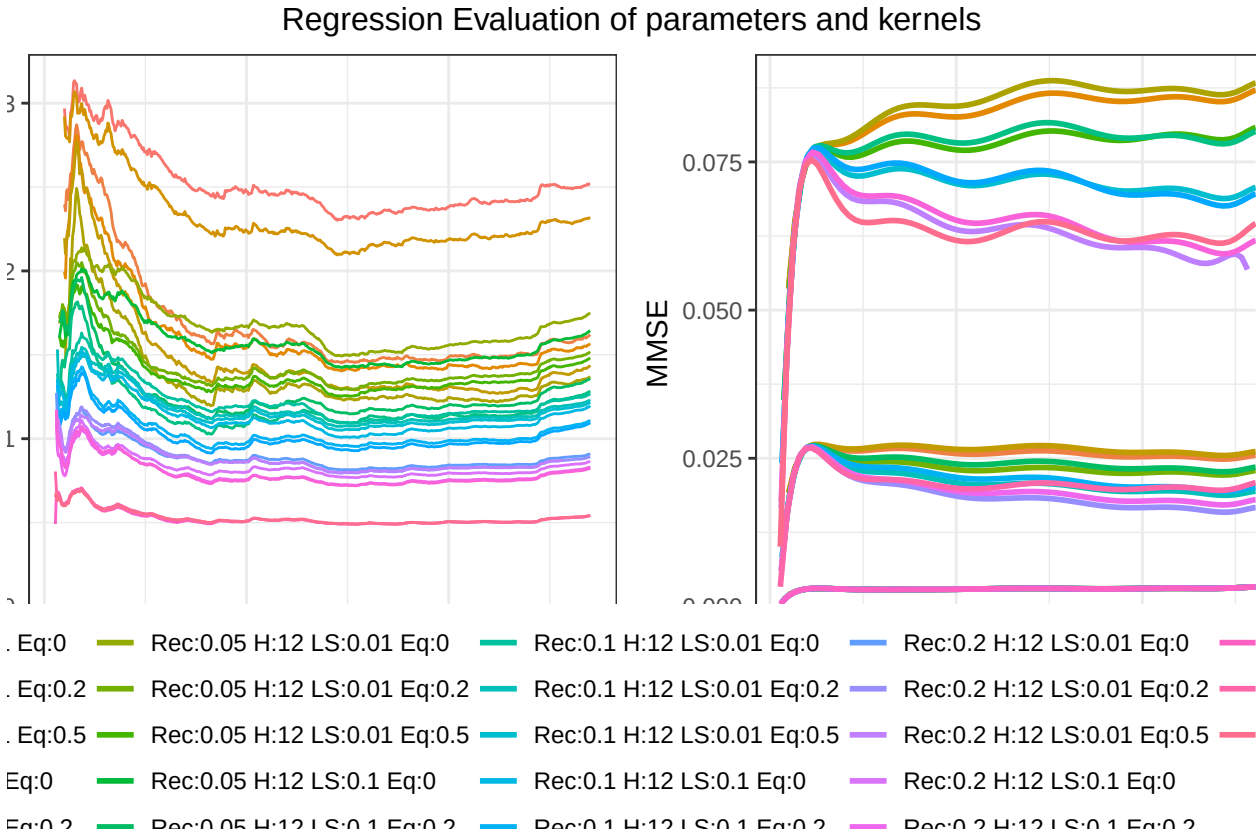
7/24/2018

Comparison between CTR and MSE for Random when for assignment are used discrete values - {0,1} or float between [0, 1]. When doing the math for uniform distribution it's clear that the expectation should be a bit above 33% (since we have very few 1s we can approximate the error if we get only 0s). E[(0 - A)^2] = E[0^2] - E[0*A] + E[A^2] = var(A) + E[A]^2 = 1/12 + 1/4 = 1/3 And the expectation for the discrete values {0, 1} is clearly 0.5%. In terms of CTR both perform equally around 0.18.

```
## Warning in strptime(xx, f <- "%Y-%m-%d %H:%M:%OS", tz = tz): unknown
## timezone 'zone/tz/2018c.1.0/zoneinfo/Europe/Sofia'
```




GP Evaluation of parameters and kernels
1.00
0.75
0.50
0.25
0.00
0 M
2 M
4 M
0.15
0.10
0.05
0.00
MMSE
Nu:1.5 H:12 LS:100 CL:20 Eq:0.2
Nu:2.5 H:12 LS:100 CL:10 Eq:0
Nu:2.5 H:12 LS:100 CL:20 Eq:0.
:0
Nu:1.5 H:12 LS:200 CL:10 Eq:0.2
Nu:2.5 H:12 LS:100 CL:10 Eq:0.2
Nu:2.5 H:12 LS:200 CL:10 Eq:0.
:0.2
Nu:1.5 H:4 LS:100 CL:10 Eq:0.2
Nu:2.5 H:12 LS:100 CL:10 Eq:0.5
Nu:2.5 H:4 LS:100 CL:10 Eq:0.2
:0.5
q:0
Rec:0.05 H:12 LS
q:0.2
Rec:0.05 H:12 LS
q:0.5
Rec:0.05 H:12 LS
Rec:0.05 H:12 LS
Rec:0.05 H:12 LS
Rec:0.05 H:12 LS
Rec Change−EQ:0.2
LRate Change
LRate Change−EC
CTR
Impressions
Rec:
10%
20%
50%
LRate:
0.001
0.01
1e−
LRate:
0.001
0.01


Regression Evaluation of parameters and kernels
MMSE
0.075
0.050
0.025
. Eq:0
Rec:0.05 H:12 LS:0.01 Eq:0
Rec:0.1 H:12 LS:0.01 Eq:0
Rec:0.2 H:12 LS:0.01 Eq:0
. Eq:0.2
Rec:0.05 H:12 LS:0.01 Eq:0.2
Rec:0.1 H:12 LS:0.01 Eq:0.2
Rec:0.2 H:12 LS:0.01 Eq:0.2
. Eq:0.5
Rec:0.05 H:12 LS:0.01 Eq:0.5
Rec:0.1 H:12 LS:0.01 Eq:0.5
Rec:0.2 H:12 LS:0.01 Eq:0.5
Eq:0
Rec:0.05 H:12 LS:0.1 Eq:0
Rec:0.1 H:12 LS:0.1 Eq:0
Rec:0.2 H:12 LS:0.1 Eq:0