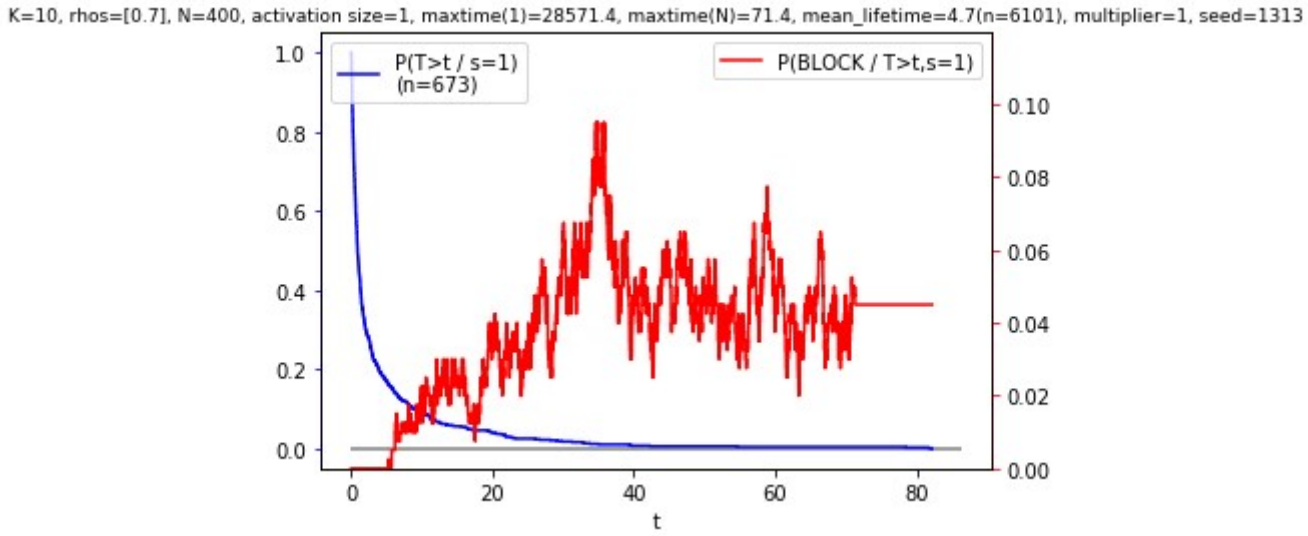
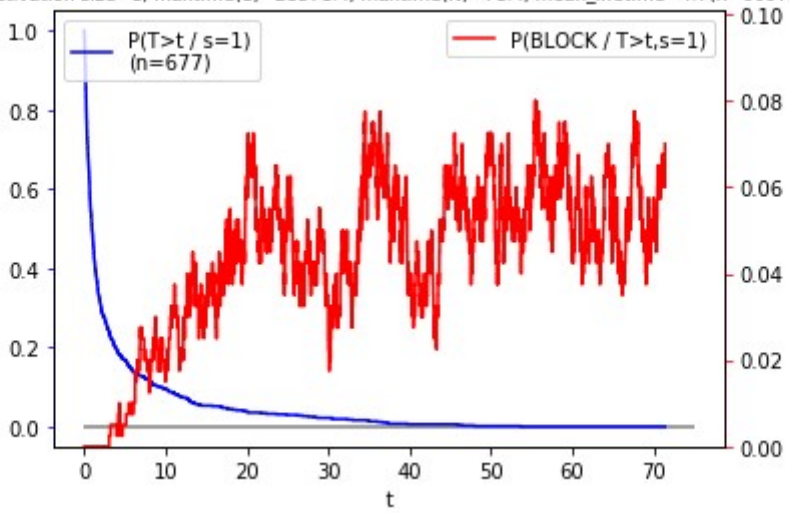
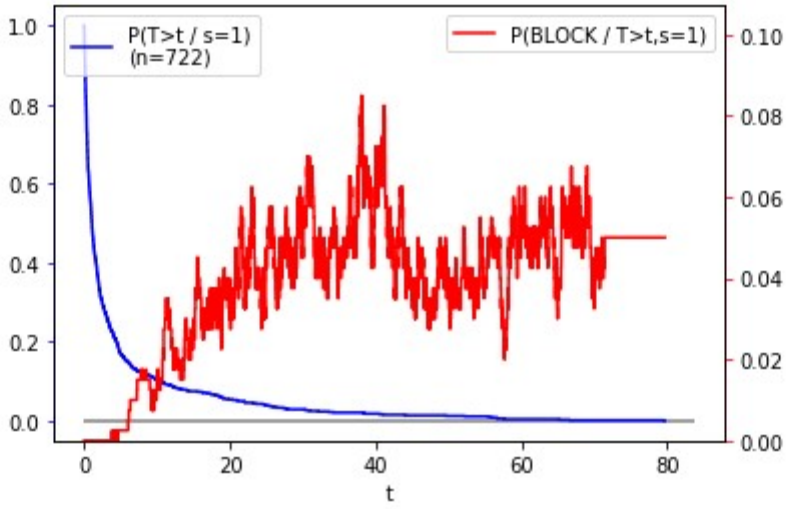
```
Python 3.6.4 |Anaconda custom (64-bit)| (default, Jan 16 2018, 10:22:32) [MSC v.1900 64 bit (AMD64)]
Type "copyright", "credits" or "license" for more information.

IPython 6.2.1 -- An enhanced Interactive Python.

In [1]: runfile('E:/Daniel/Projects/PhD-RL-Toulouse/projects/Python/test/test_QB.py', wdir='E:/Daniel/Projects/PhD-RL-Toulouse/projects/Python/test')
Directory:
E:\Daniel\Projects\PhD-RL-Toulouse\projects
has been prepended to the module search path.
Log file '../../RL-002-QueueBlocking/logs/analyze_convergence_20210429_132037.log' has been open for output.
Started at: 2021-04-29 13:20:37
C:\ProgramData\Anaconda\Anaconda3\lib\site-packages\matplotlib\pyplot.py:528: RuntimeWarning: More than 20 figures have been opened. Figures created through
the pyplot interface (`matplotlib.pyplot.figure`) are retained until explicitly closed and may consume too much memory. (To control this warning, see the
rcParam `figure.max_open_warning`).
  max_open_warning, RuntimeWarning)
C:\ProgramData\Anaconda\Anaconda3\lib\site-packages\pandas\core\groupby.py:4291: FutureWarning: using a dict with renaming is deprecated and will be removed in
a future version
  return super(DataFrameGroupBy, self).aggregate(arg, *args, **kwargs)
Ended at: 2021-04-29 16:08:37
Execution time: 168.0 min, 2.8 hours
```



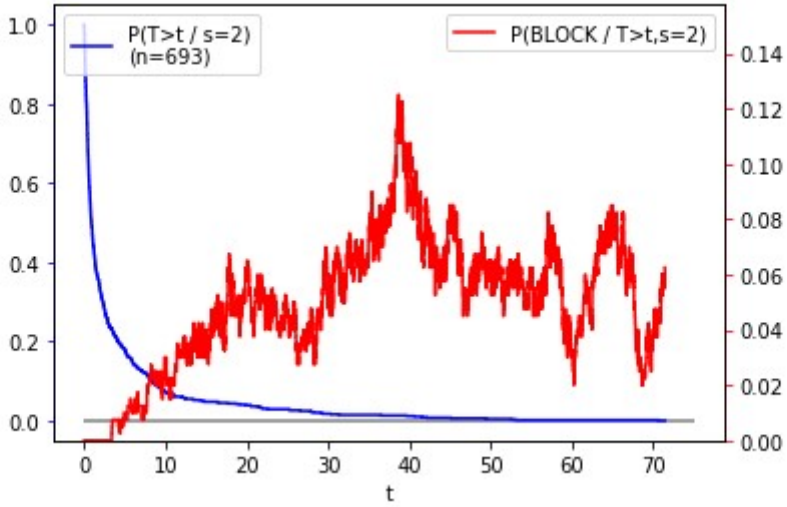
K=10, rhos=[0.7], N=400, activation size=1, maxtime(1)=28571.4, maxtime(N)=71.4, mean_lifetime=4.7(n=6097), multiplier=1, seed=1313



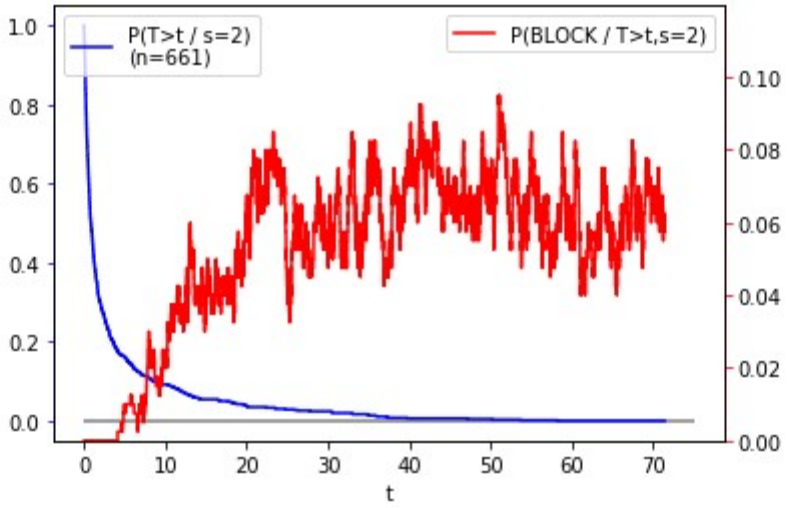
K=10, rhos=[0.7], N=400, activation size=1, maxtime(1)=28571.4, maxtime(N)=71.4, mean_lifetime=4.9(n=5840), multiplier=1, seed=1313



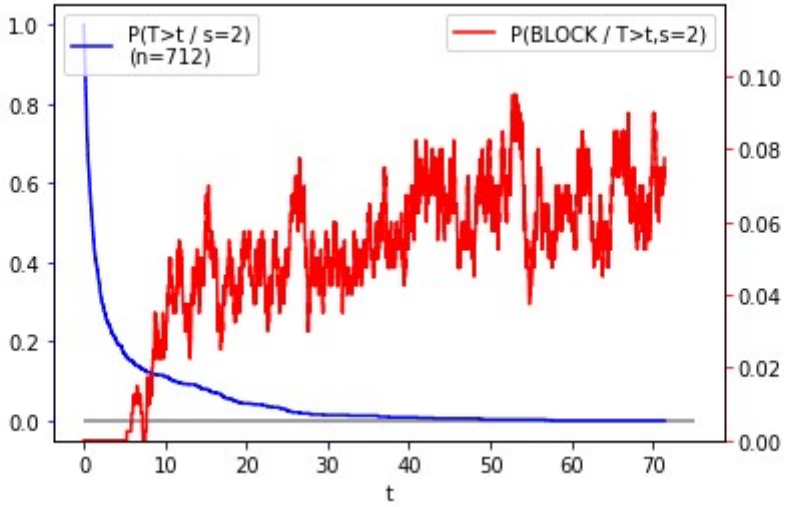
K=10, rhos=[0.7], N=400, activation size=2, maxtime(1)=28571.4, maxtime(N)=71.4, mean_lifetime=6.8(n=4186), multiplier=1, seed=1313



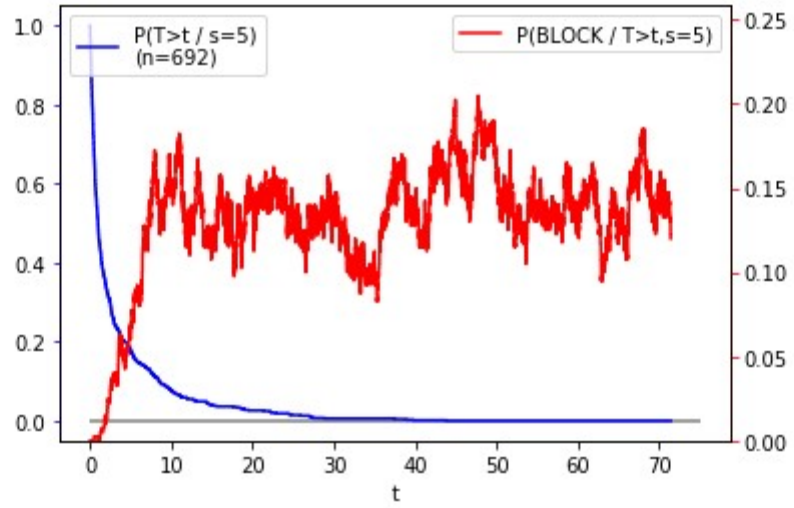
K=10, rhos=[0.7], N=400, activation size=2, maxtime(1)=28571.4, maxtime(N)=71.4, mean_lifetime=6.7(n=4265), multiplier=1, seed=1313



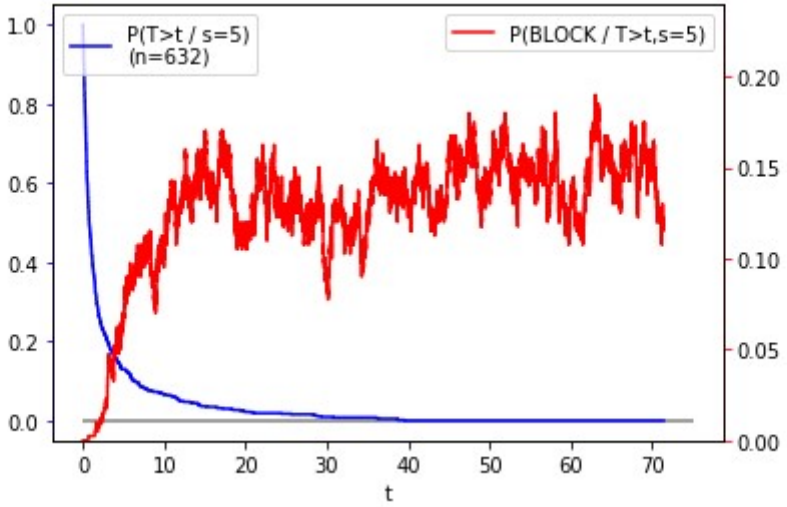
K=10, rhos=[0.7], N=400, activation size=2, maxtime(1)=28571.4, maxtime(N)=71.4, mean_lifetime=6.7(n=4244), multiplier=1, seed=1313



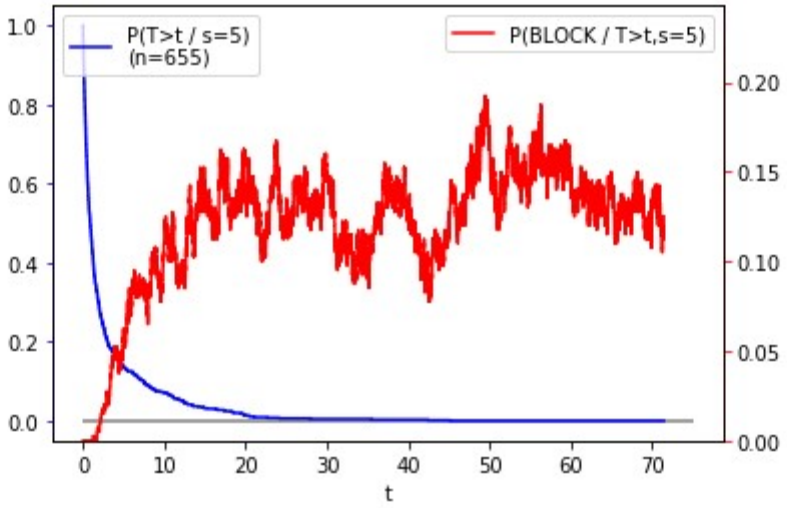
K=10, rhos=[0.7], N=400, activation size=5, maxtime(1)=28571.4, maxtime(N)=71.4, mean_lifetime=18.8(n=1514), multiplier=1, seed=1313

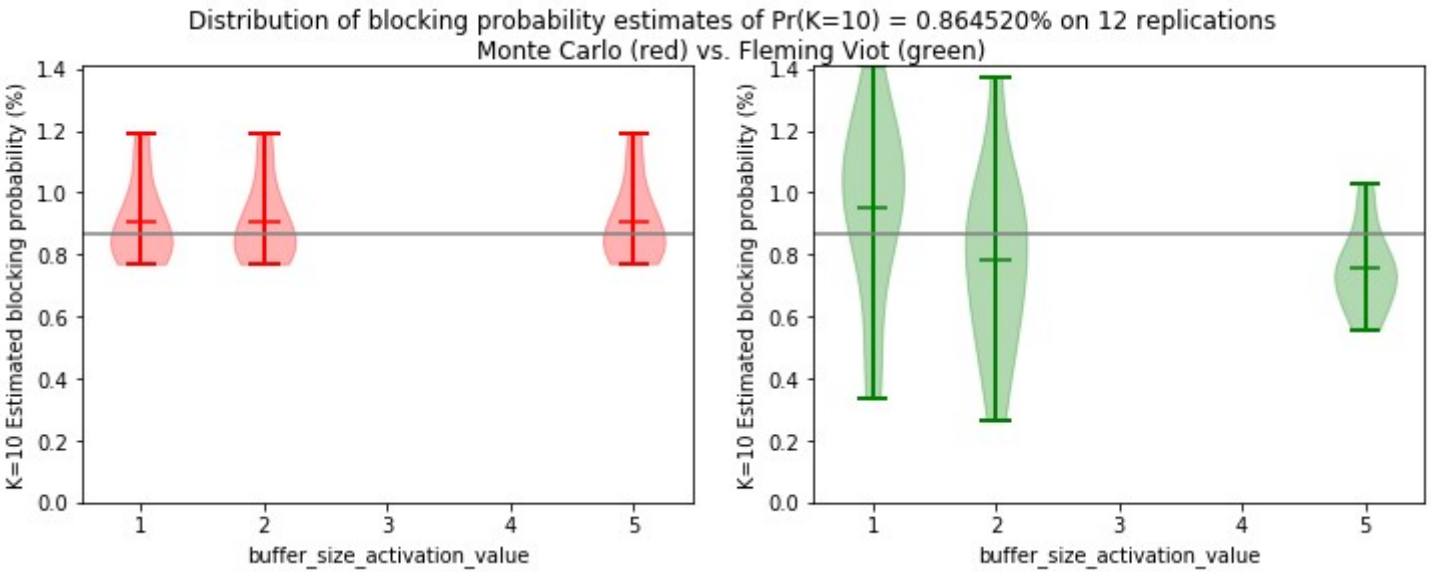


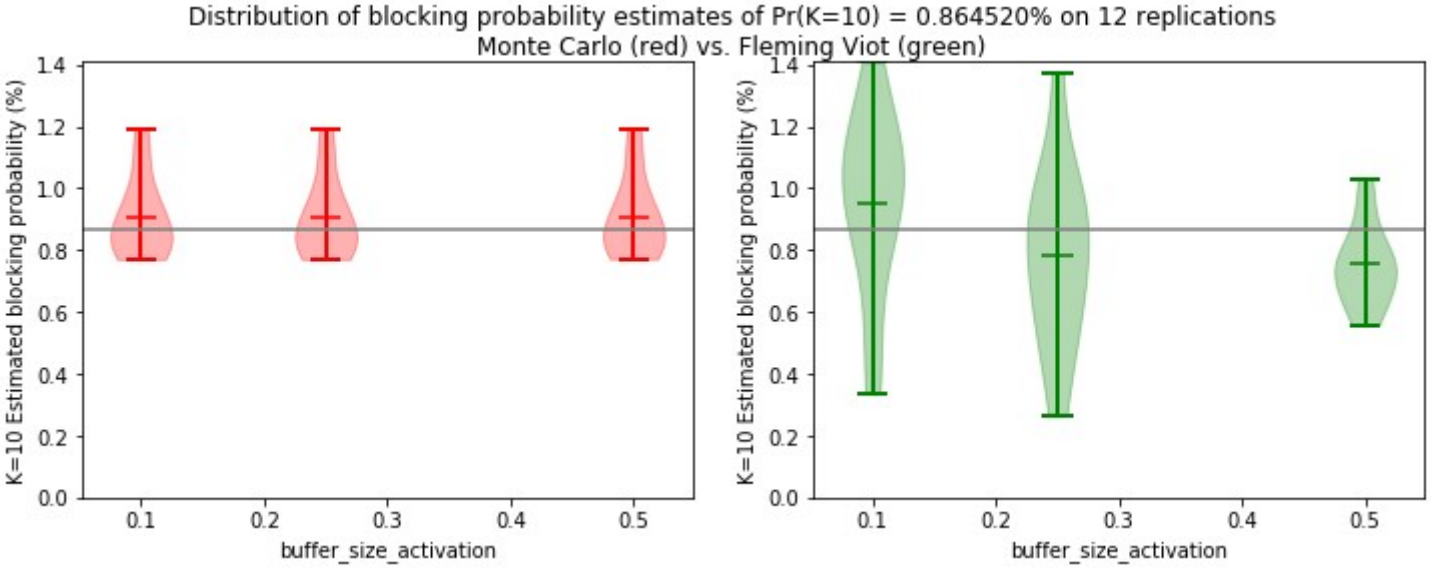
K=10, rhos=[0.7], N=400, activation size=5, maxtime(1)=28571.4, maxtime(N)=71.4, mean_lifetime=19.1(n=1494), multiplier=1, seed=1313

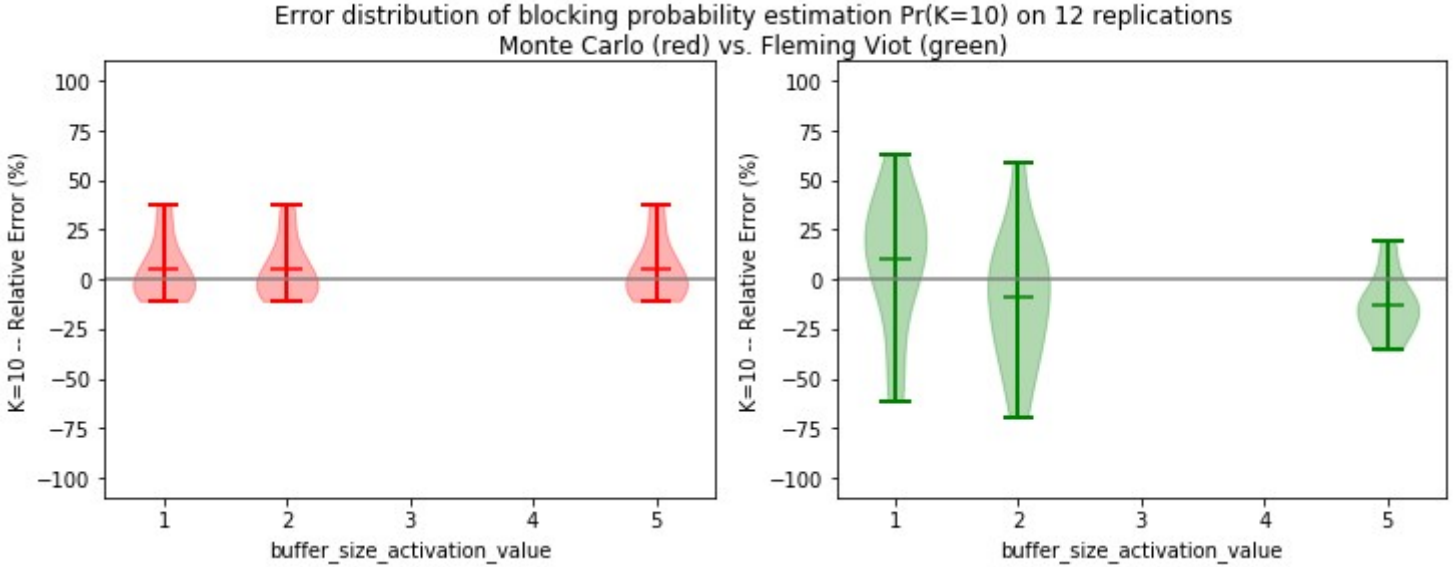


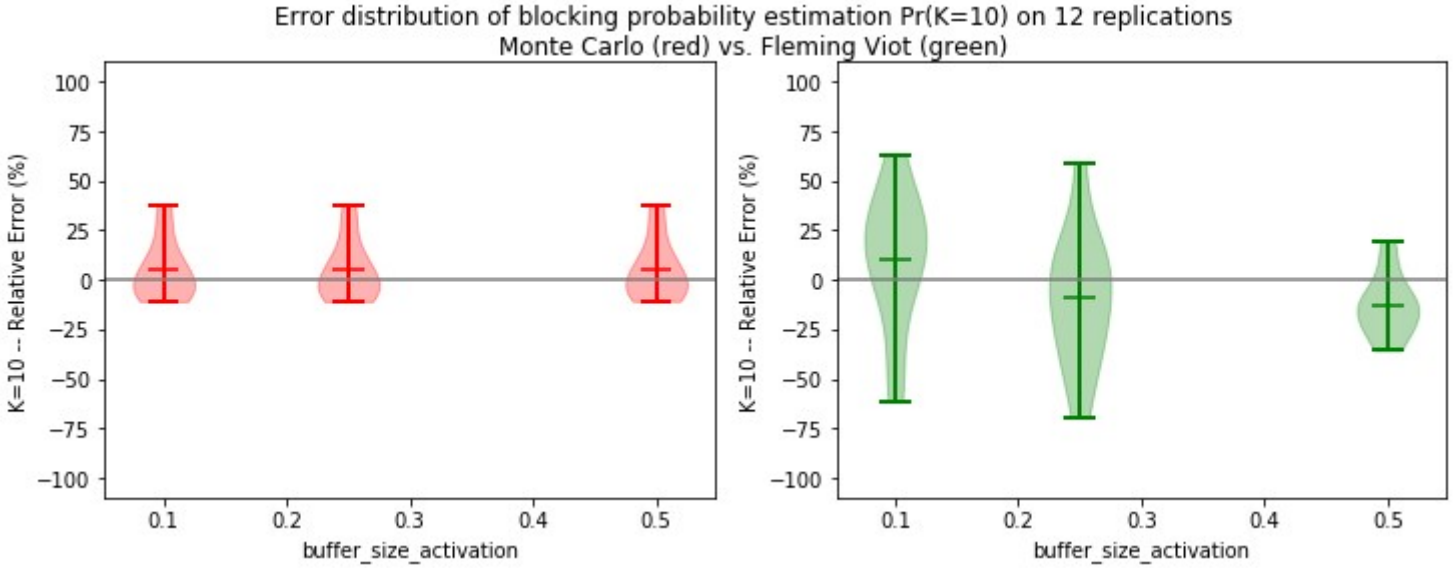
K=10, rhos=[0.7], N=400, activation size=5, maxtime(1)=28571.4, maxtime(N)=71.4, mean_lifetime=18.7(n=1523), multiplier=1, seed=1313



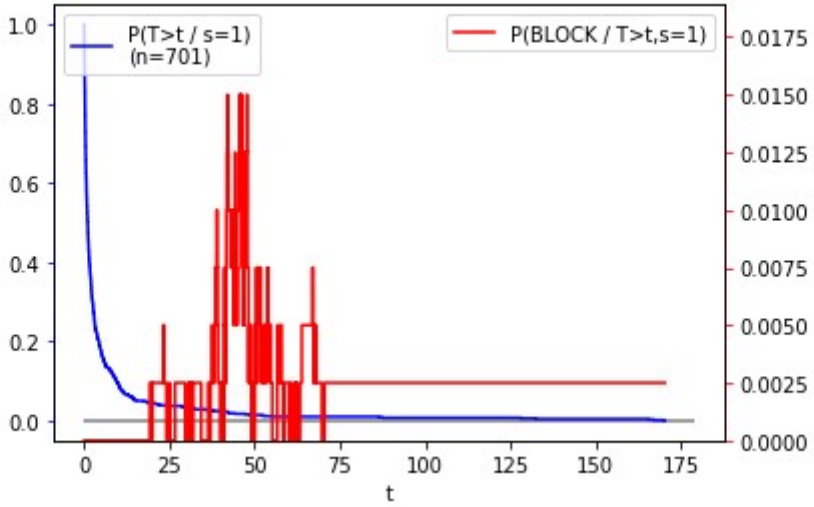

Distribution of blocking probability estimates of Pr(K=10) = 0.864520% on 12 replications
Monte Carlo (red) vs. Fleming Viot (green)
K=10 Estimated blocking probability (%)
buffer_size_activation_value
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
1
2
3
4
5


Distribution of blocking probability estimates of Pr(K=10) = 0.864520% on 12 replications
Monte Carlo (red) vs. Fleming Viot (green)
K=10 Estimated blocking probability (%)
buffer_size_activation
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0.1
0.2
0.3
0.4
0.5

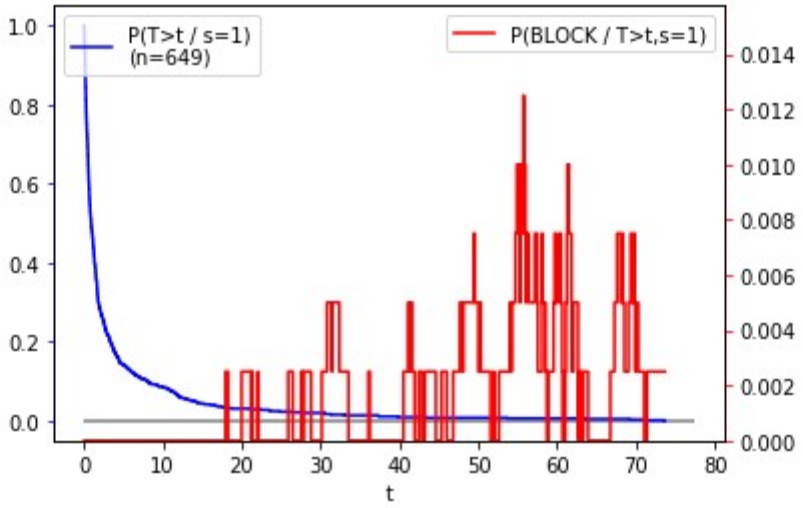

Error distribution of blocking probability estimation Pr(K=10) on 12 replications
Monte Carlo (red) vs. Fleming Viot (green)
K=10 -- Relative Error (%)
100
75
50
25
0
−25
−50
−75
−100
1
2
3
4
5
buffer_size_activation_value
K=10 -- Relative Error (%)
100
75
50
25
0
−25
−50
−75
−100
1
2
3
4
5
buffer_size_activation_value


Error distribution of blocking probability estimation Pr(K=10) on 12 replications
Monte Carlo (red) vs. Fleming Viot (green)
K=10 -- Relative Error (%)
100
75
50
25
0
−25
−50
−75
−100
0.1
0.2
0.3
0.4
0.5
buffer_size_activation
K=10 -- Relative Error (%)
100
75
50
25
0
−25
−50
−75
−100
0.1
0.2
0.3
0.4
0.5
buffer_size_activation

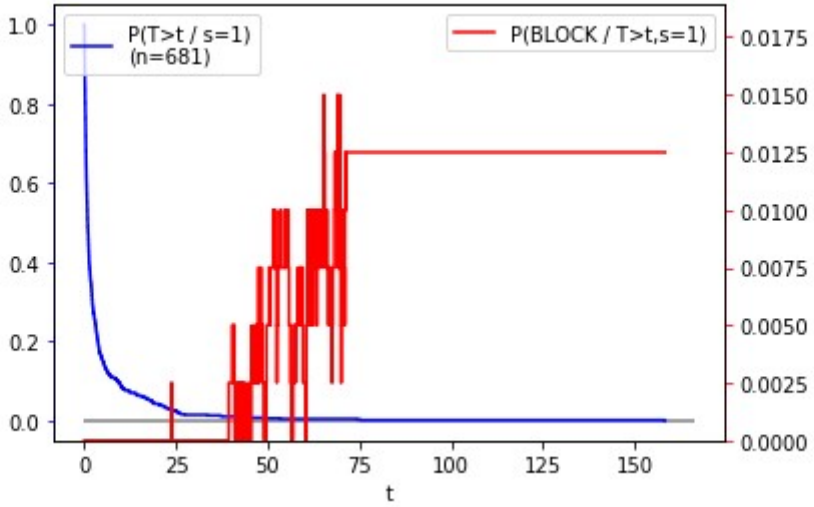
K=20, rhos=[0.7], N=400, activation size=1, maxtime(1)=28571.4, maxtime(N)=71.4, mean_lifetime=4.8(n=5985), multiplier=1, seed=1313



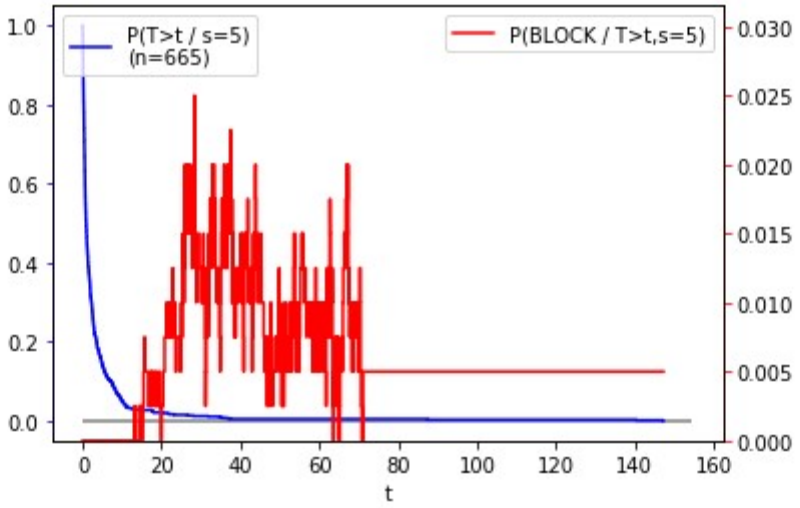
K=20, rhos=[0.7], N=400, activation size=1, maxtime(1)=28571.4, maxtime(N)=71.4, mean_lifetime=4.8(n=6006), multiplier=1, seed=1313



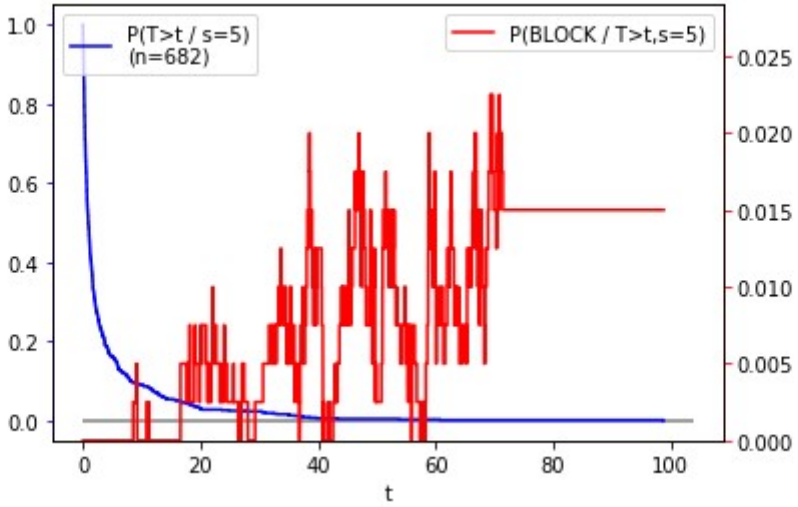
K=20, rhos=[0.7], N=400, activation size=1, maxtime(1)=28571.4, maxtime(N)=71.4, mean_lifetime=5.0(n=5706), multiplier=1, seed=1313



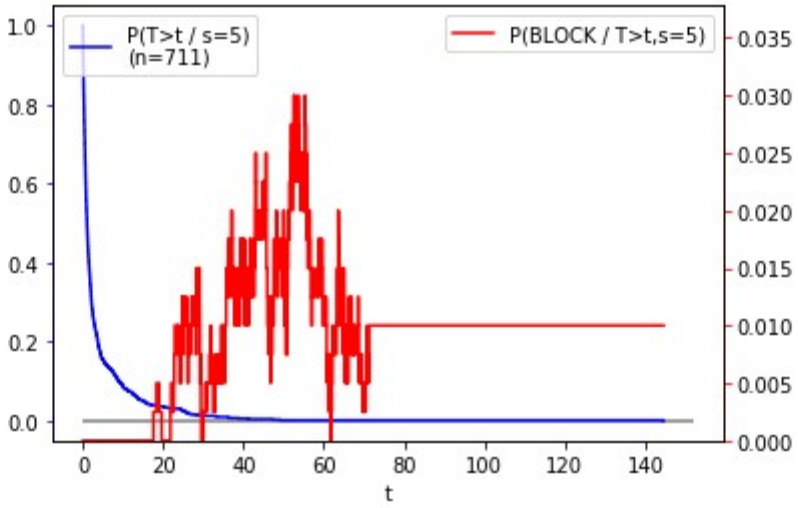
K=20, rhos=[0.7], N=400, activation size=5, maxtime(1)=28571.4, maxtime(N)=71.4, mean_lifetime=19.4(n=1464), multiplier=1, seed=1313



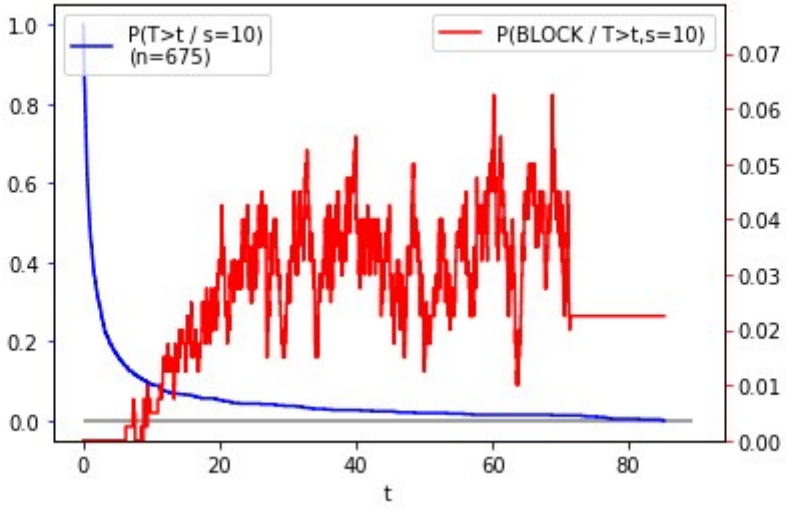
K=20, rhos=[0.7], N=400, activation size=5, maxtime(1)=28571.4, maxtime(N)=71.4, mean_lifetime=19.6(n=1459), multiplier=1, seed=1313



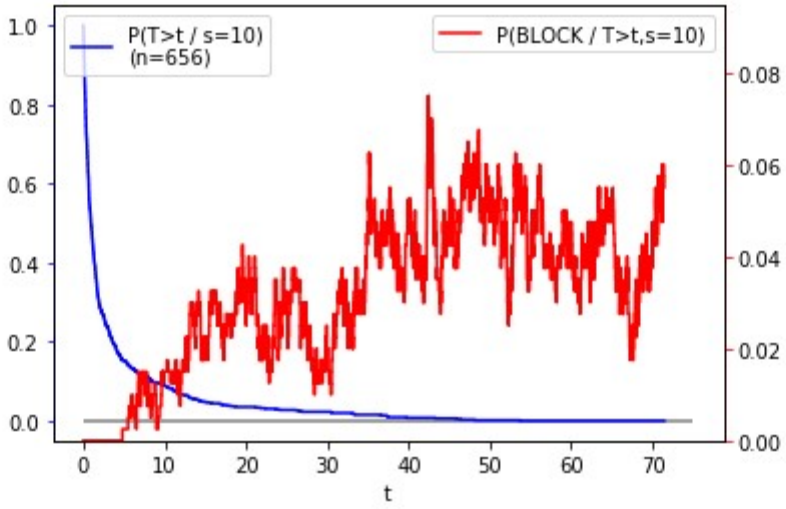
K=20, rhos=[0.7], N=400, activation size=5, maxtime(1)=28571.4, maxtime(N)=71.4, mean_lifetime=19.6(n=1457), multiplier=1, seed=1313

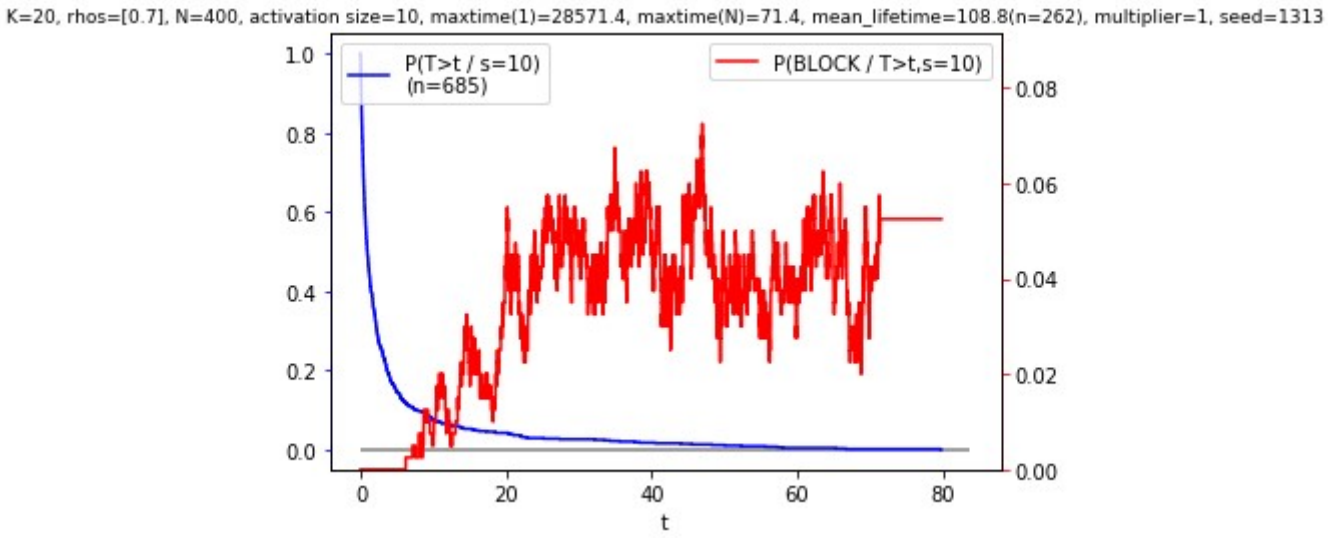


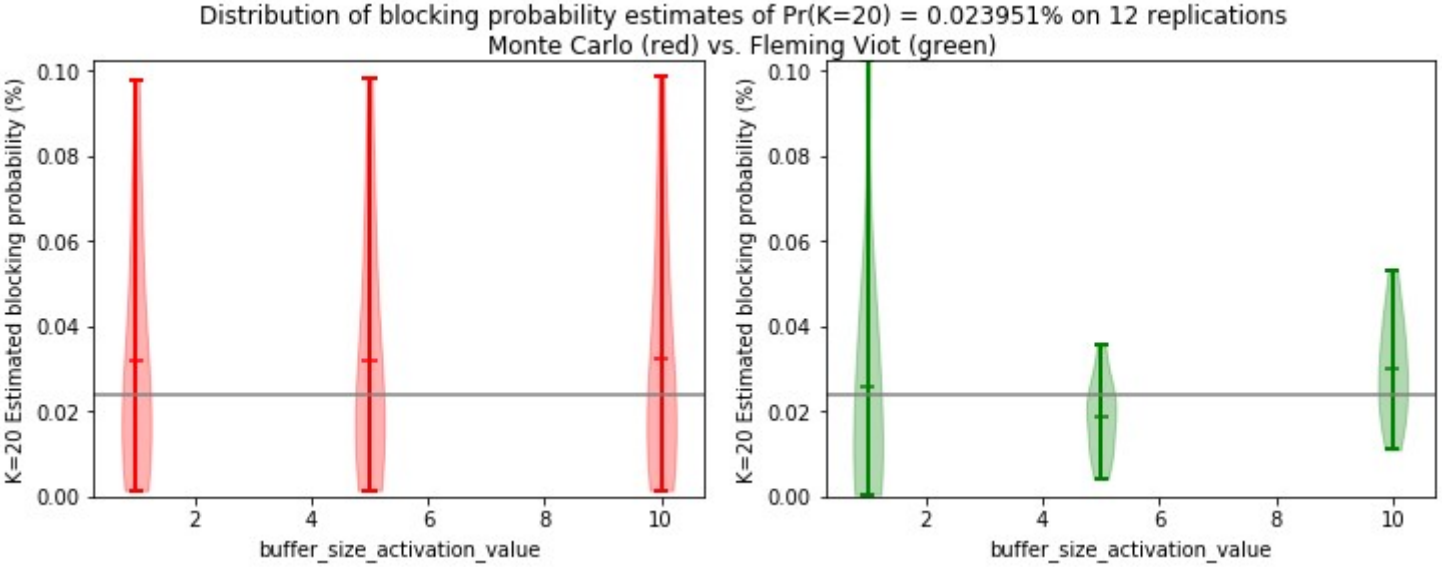
K=20, rhos=[0.7], N=400, activation size=10, maxtime(1)=28571.4, maxtime(N)=71.4, mean_lifetime=107.2(n=264), multiplier=1, seed=1313

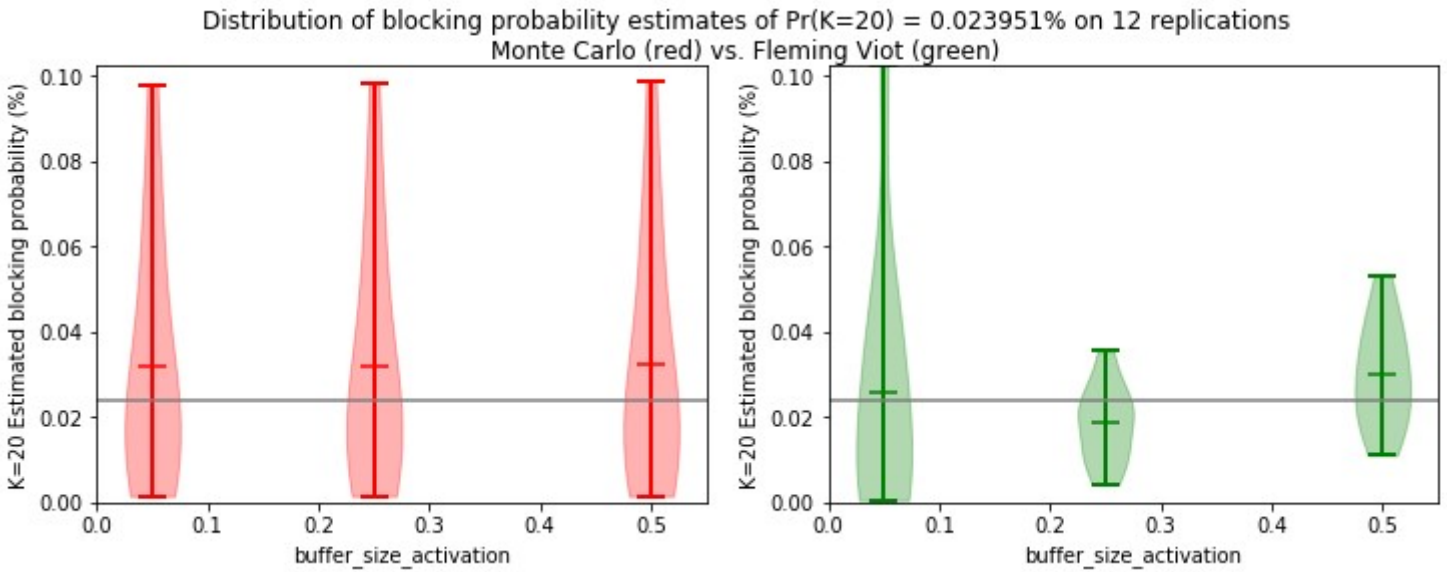


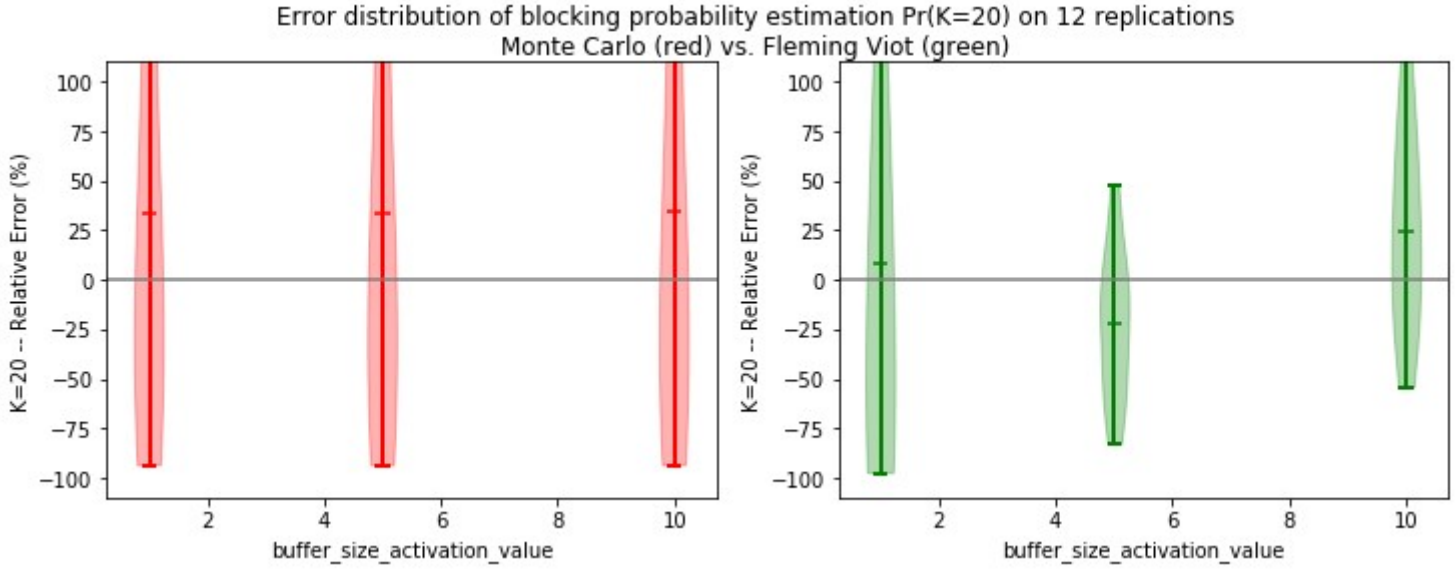
K=20, rhos=[0.7], N=400, activation size=10, maxtime(1)=28571.4, maxtime(N)=71.4, mean_lifetime=104.4(n=268), multiplier=1, seed=1313

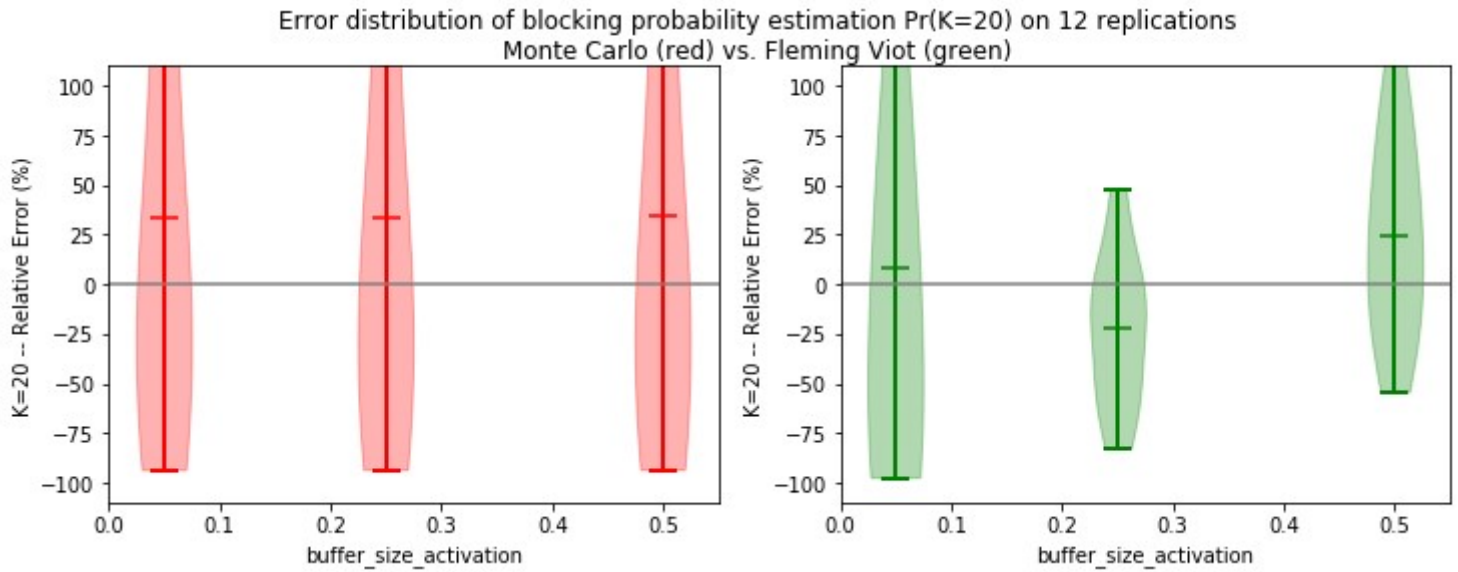



K=20, rhos=[0.7], N=400, activation size=10, maxtime(1)=28571.4, maxtime(N)=71.4, mean_lifetime=108.8(n=262), multiplier=1, seed=1313
P(T>t / s=10)
(n=685)
P(BLOCK / T>t,s=10)
t


Distribution of blocking probability estimates of Pr(K=20) = 0.023951% on 12 replications
Monte Carlo (red) vs. Fleming Viot (green)
K=20 Estimated blocking probability (%)
buffer_size_activation_value


Distribution of blocking probability estimates of Pr(K=20) = 0.023951% on 12 replications
Monte Carlo (red) vs. Fleming Viot (green)
K=20 Estimated blocking probability (%)
0.10
0.08
0.06
0.04
0.02
0.00
0.0
0.1
0.2
0.3
0.4
0.5
buffer_size_activation


Error distribution of blocking probability estimation Pr(K=20) on 12 replications
Monte Carlo (red) vs. Fleming Viot (green)
K=20 -- Relative Error (%)
100
75
50
25
0
−25
−50
−75
−100
2
4
6
8
10
buffer_size_activation_value


Error distribution of blocking probability estimation Pr(K=20) on 12 replications
Monte Carlo (red) vs. Fleming Viot (green)
K=20 -- Relative Error (%)
buffer_size_activation
K=20 -- Relative Error (%)
buffer_size_activation

In [2]: