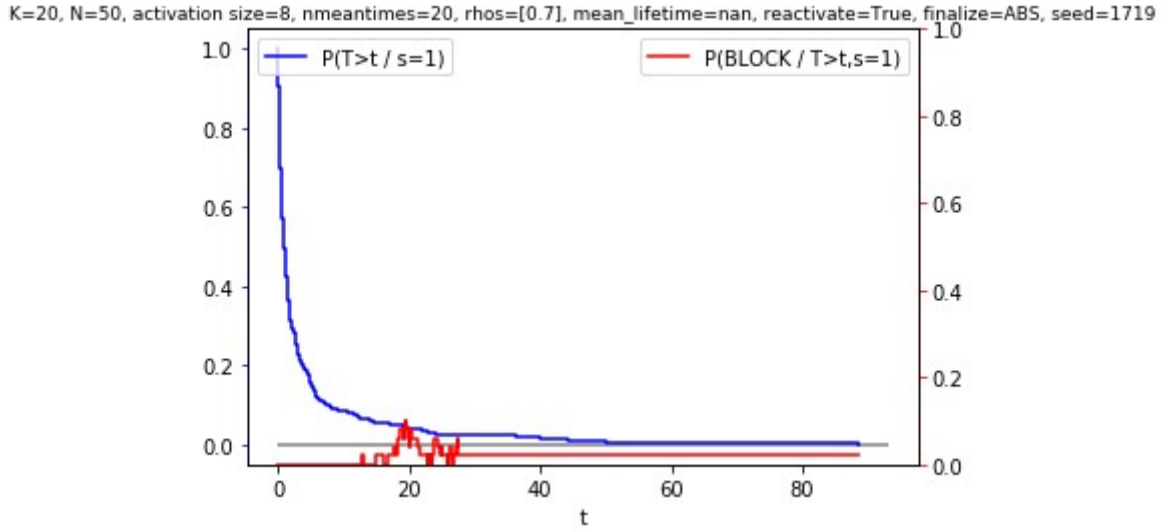
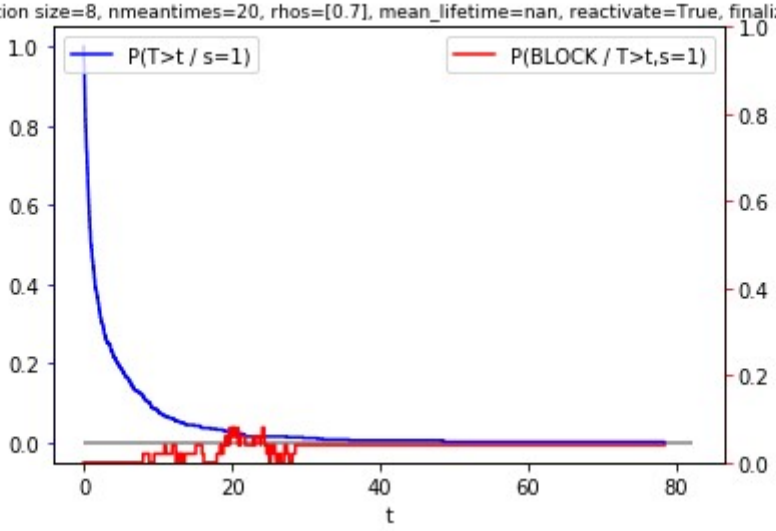
```
Python 3.6.4 |Anaconda custom (64-bit)| (default, Jan 16 2018, 10:22:32) [MSC v.1900 64 bit (AMD64)]
Type "copyright", "credits" or "license" for more information.

IPython 6.2.1 -- An enhanced Interactive Python.

Restarting kernel...
```

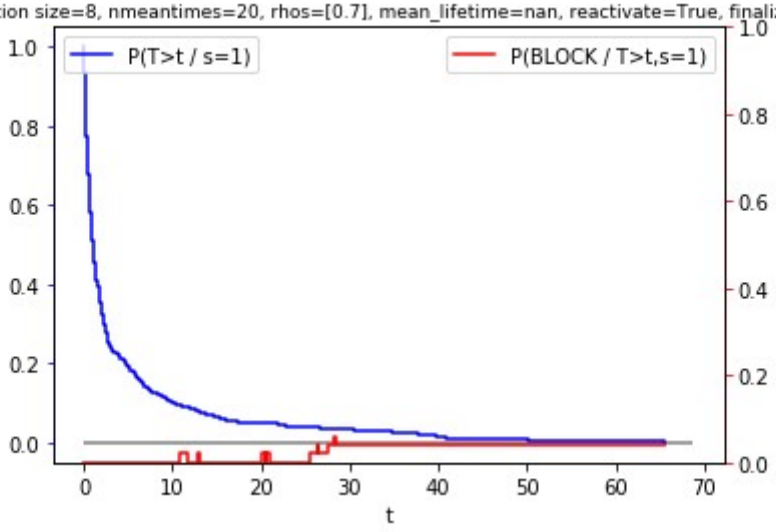
```
 runfile('E:/Daniel/Projects/PhD-RL-Toulouse/projects/Python/test/test_QB.py', wdir='E:/Daniel/Projects/
PhD-RL-Toulouse/projects/Python/test')
Directory:
E:\Daniel\Projects\PhD-RL-Toulouse\projects
has been prepended to the module search path.
Log file '../../RL-002-QueueBlocking/logs/test_fv_implementation_20210422_230031.log' has been open for
output.
Started at: 2021-04-22 23:00:31
E:\Daniel\Projects\PhD-RL-Toulouse\projects\Python\lib\estimators.py:1016: UserWarning: Particle P=0 has
NOT been absorbed and the maximum simulation time (T=14285.7) has been reached...
The particle will NOT be considered for the estimation of the survival probability curve nor the
expected survival time.
  warnings.warn("Particle P={} has NOT been absorbed and the maximum simulation time (T={:.1f}) has been
reached...\n{}".format(P, self.maxtime, msg_problem))
E:\Daniel\Projects\PhD-RL-Toulouse\projects\Python\lib\estimators.py:1016: UserWarning: Particle P=0 has
NOT been absorbed and the maximum simulation time (T=28571.4) has been reached...
The particle will NOT be considered for the estimation of the survival probability curve nor the
expected survival time.
  warnings.warn("Particle P={} has NOT been absorbed and the maximum simulation time (T={:.1f}) has been
reached...\n{}".format(P, self.maxtime, msg_problem))
E:\Daniel\Projects\PhD-RL-Toulouse\projects\Python\lib\estimators.py:1016: UserWarning: Particle P=0 has
NOT been absorbed and the maximum simulation time (T=57142.9) has been reached...
The particle will NOT be considered for the estimation of the survival probability curve nor the
expected survival time.
  warnings.warn("Particle P={} has NOT been absorbed and the maximum simulation time (T={:.1f}) has been
reached...\n{}".format(P, self.maxtime, msg_problem))
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: 2021-04-22 23:12:49
Execution time: 12.3 min, 0.2 hours
```



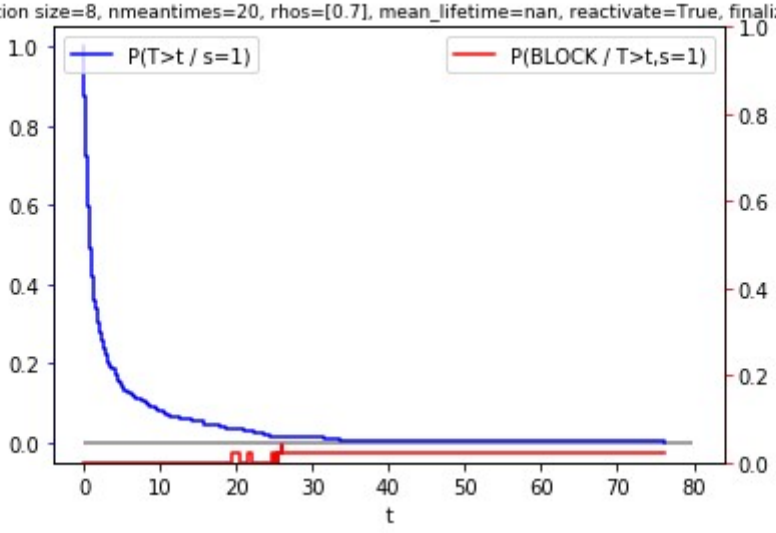
K=20, N=50, activation size=8, nmeantimes=20, rhos=[0.7], mean_lifetime=nan, reactivate=True, finalize=ABS, seed=1720



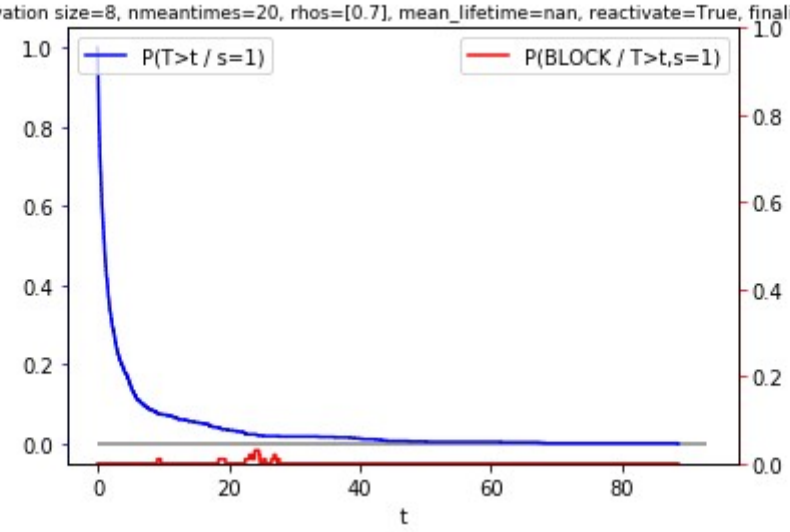
K=20, N=50, activation size=8, nmeantimes=20, rhos=[0.7], mean_lifetime=nan, reactivate=True, finalize=ABS, seed=1721



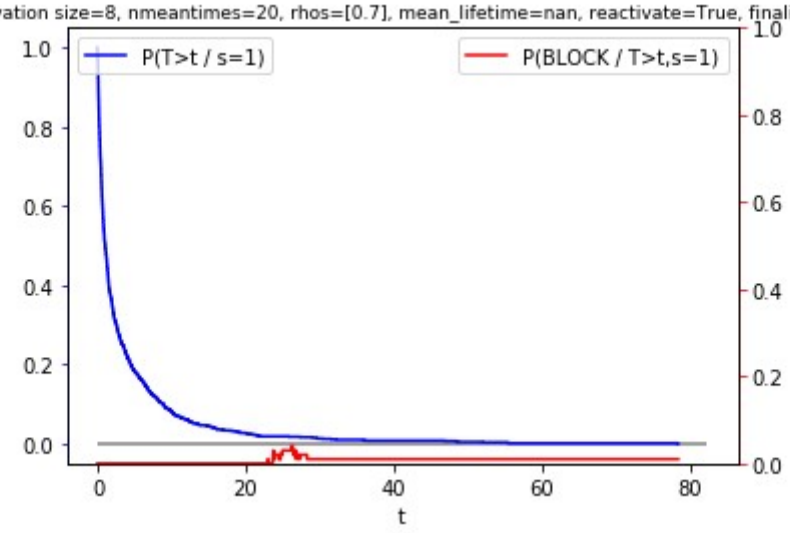
K=20, N=50, activation size=8, nmeantimes=20, rhos=[0.7], mean_lifetime=nan, reactivate=True, finalize=ABS, seed=1722



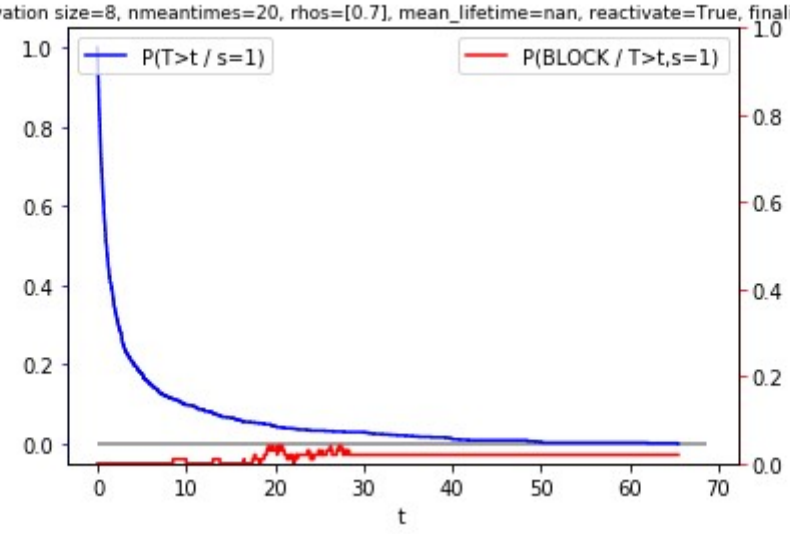
K=20, N=100, activation size=8, nmeantimes=20, rhos=[0.7], mean_lifetime=nan, reactivate=True, finalize=ABS, seed=1719



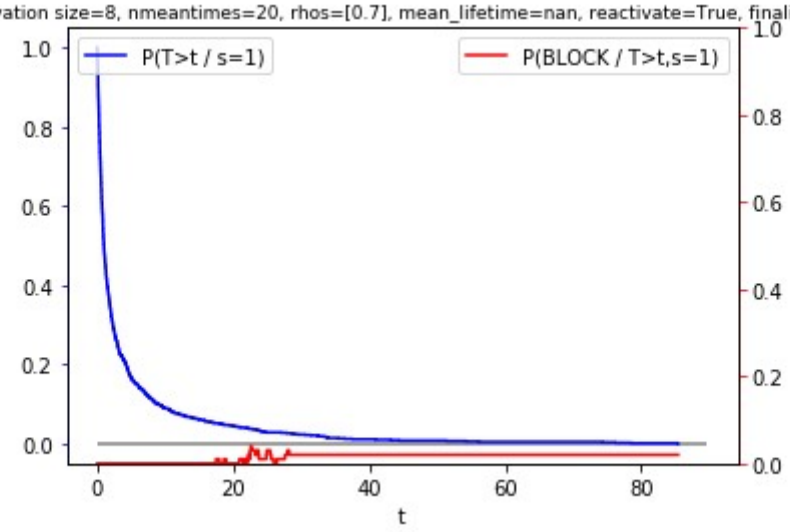
K=20, N=100, activation size=8, nmeantimes=20, rhos=[0.7], mean_lifetime=nan, reactivate=True, finalize=ABS, seed=1720



K=20, N=100, activation size=8, nmeantimes=20, rhos=[0.7], mean_lifetime=nan, reactivate=True, finalize=ABS, seed=1721



K=20, N=100, activation size=8, nmeantimes=20, rhos=[0.7], mean_lifetime=nan, reactivate=True, finalize=ABS, seed=1722



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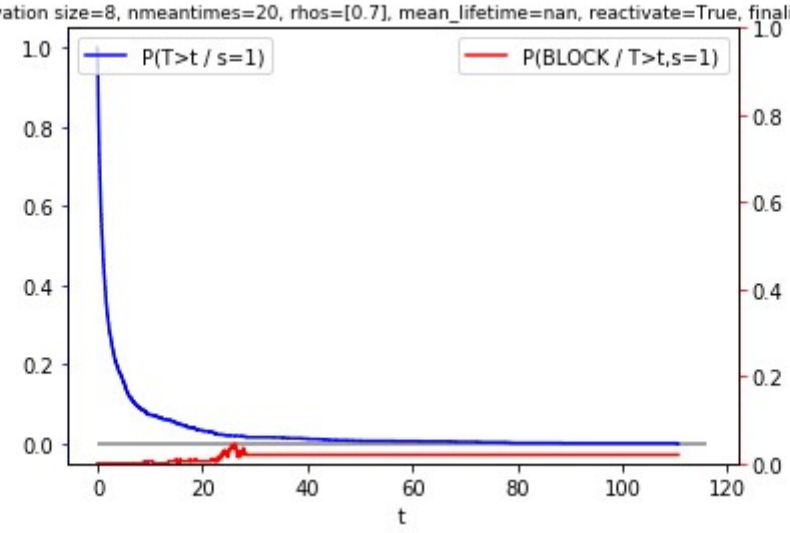
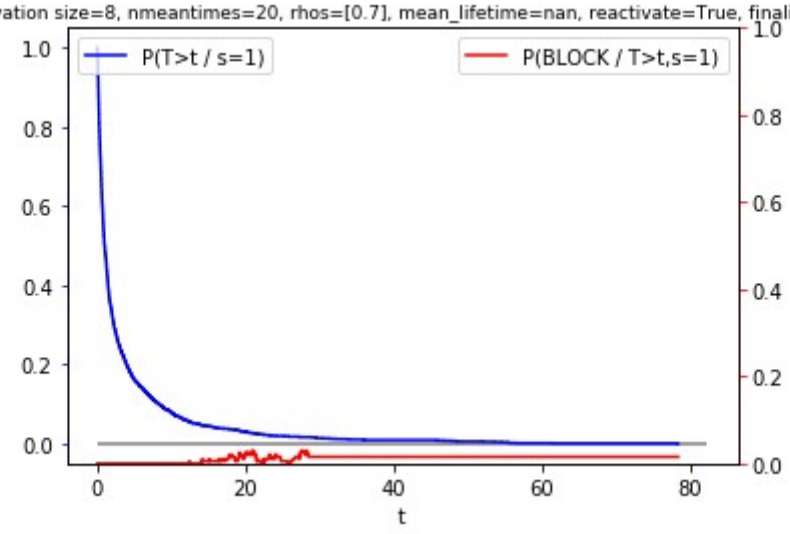
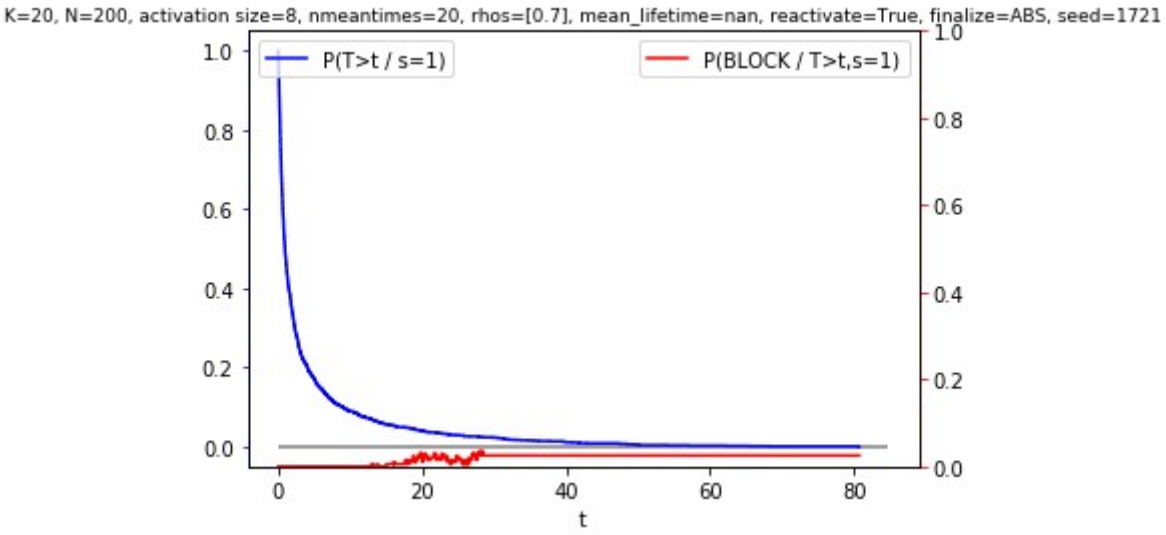
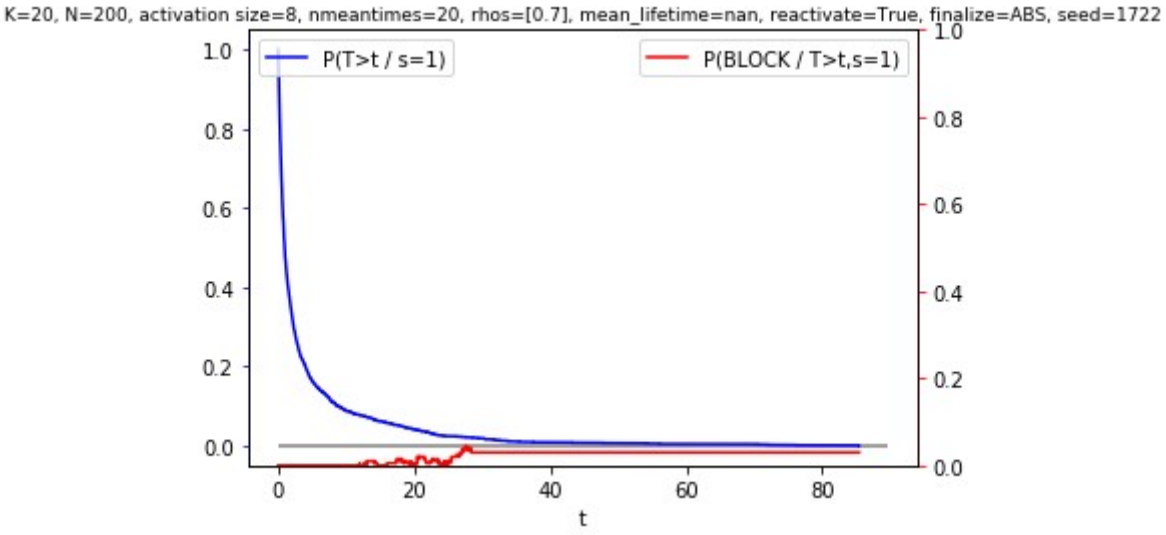
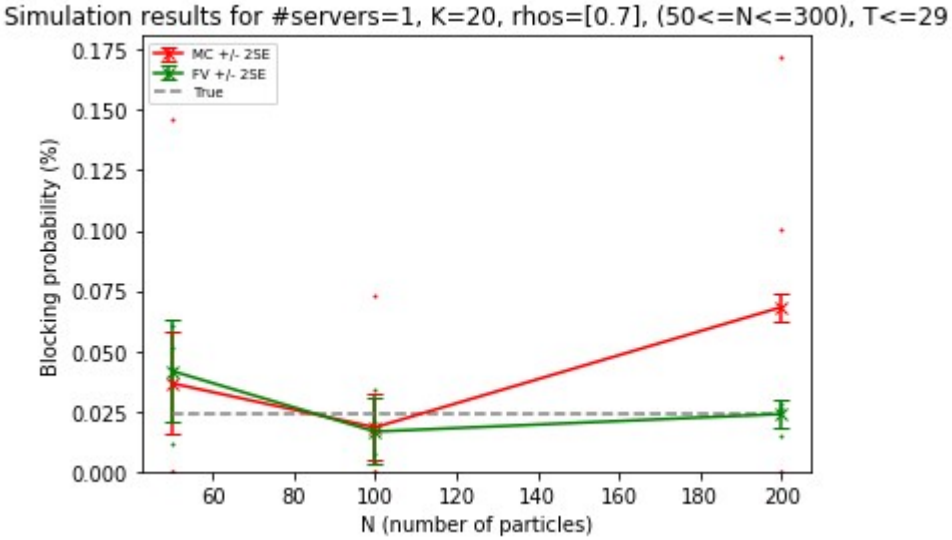


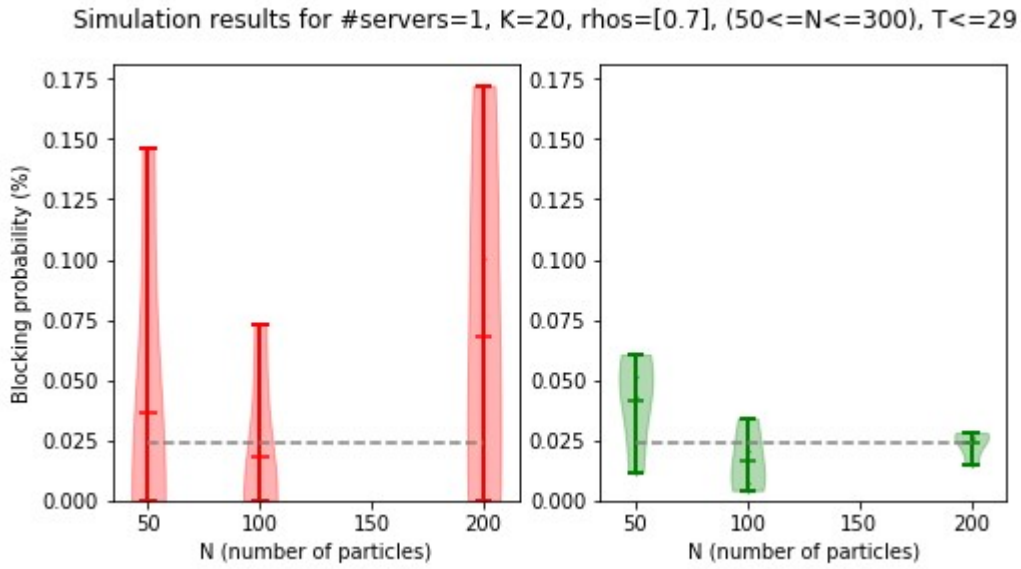
K=20, N=200, activation size=8, nmeantimes=20, rhos=[0.7], mean_lifetime=nan, reactivate=True, finalize=ABS, seed=1720




K=20, N=200, activation size=8, nmeantimes=20, rhos=[0.7], mean_lifetime=nan, reactivate=True, finalize=ABS, seed=1721
P(T>t / s=1)
P(BLOCK / T>t,s=1)
t


K=20, N=200, activation size=8, nmeantimes=20, rhos=[0.7], mean_lifetime=nan, reactivate=True, finalize=ABS, seed=1722
P(T>t / s=1)
P(BLOCK / T>t,s=1)
t


Simulation results for #servers=1, K=20, rhos=[0.7], (50<=N<=300), T<=29
MC +/- 2SE
FV +/- 2SE
True
Blocking probability (%)
N (number of particles)


Simulation results for #servers=1, K=20, rhos=[0.7], (50<=N<=300), T<=29
Blocking probability (%)
0.175
0.150
0.125
0.100
0.075
0.050
0.025
0.000
50
100
150
200
N (number of particles)

In [1]:

In [2]: