

ϵ -greedy method on the 10-armed bandit problem

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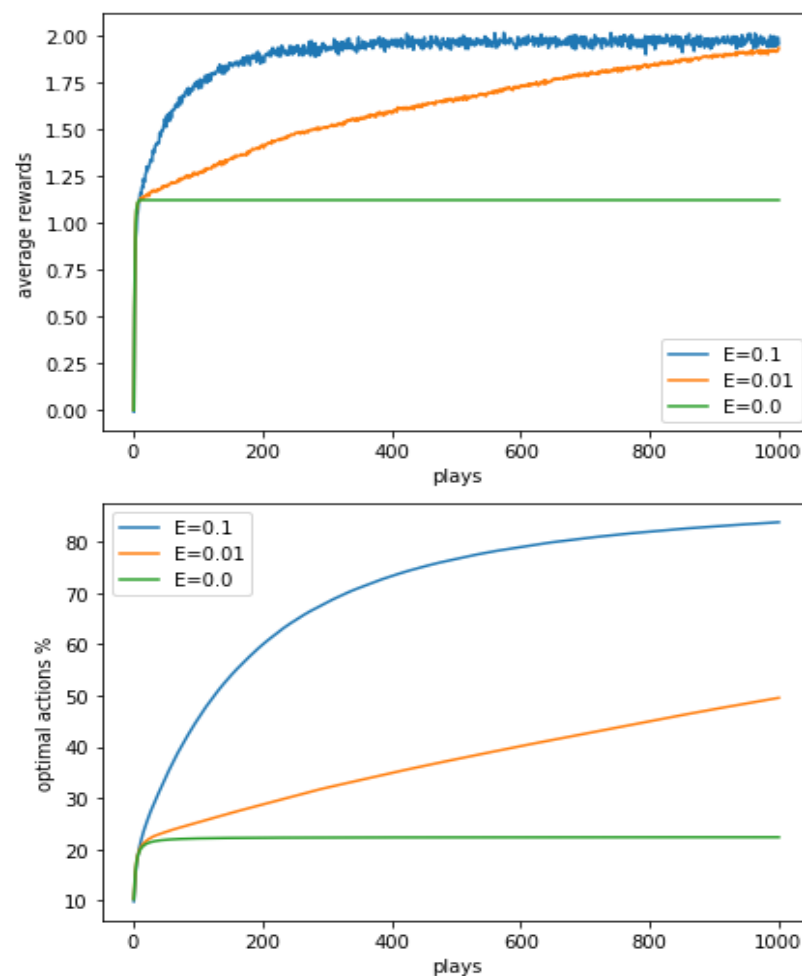
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Parameters:

K_arms =10

Plays=1000

Iterations=2000



Conclusion:

For greedy method, average rewards instantly improved but almost quickly stabilized on a certain level without further improvement as it only exploited the already found value of estimated reward. On the other hand, ϵ -greedy method kept increasing the total rewards due to exploration property, the higher the exploration the quicker optimal results are found.