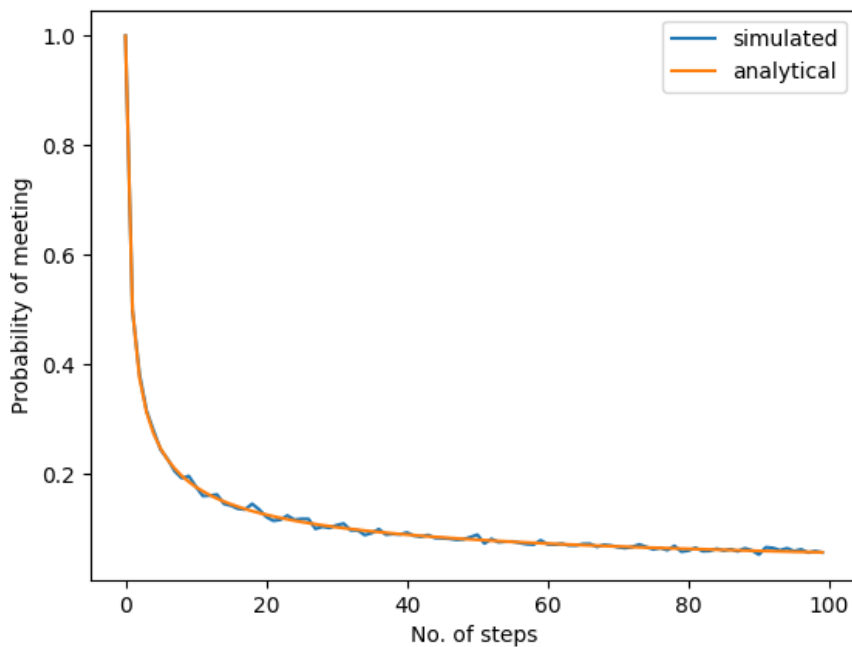


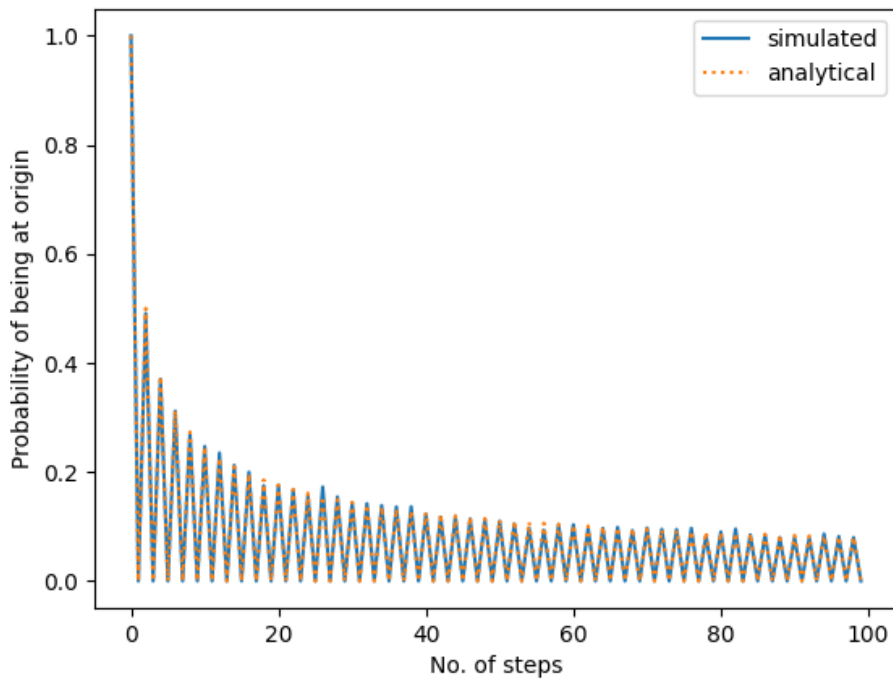
## Random Walk

*For analytical calculations please refer to analytical.pdf in the same directory.*

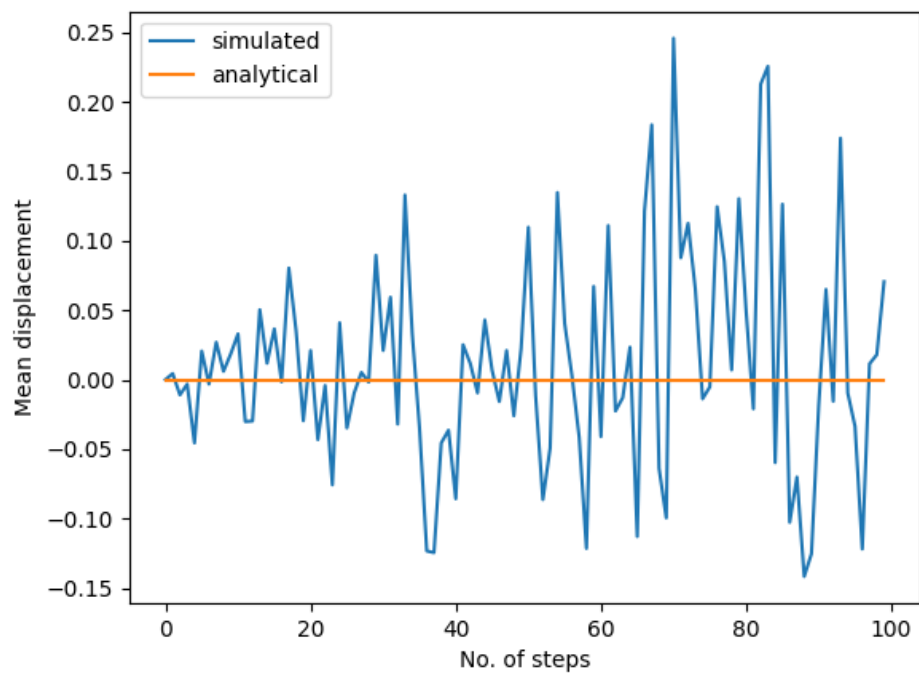
1. Two drunks randomly start out at origin, each having random probability of going to the left or right. Find the probability that they meet after N steps.



2. What is the probability of a drunk to be at the origin after  $N$  steps?



3. What is the mean displacement after  $N$  steps?



4. What is the mean square displacement after N steps?

