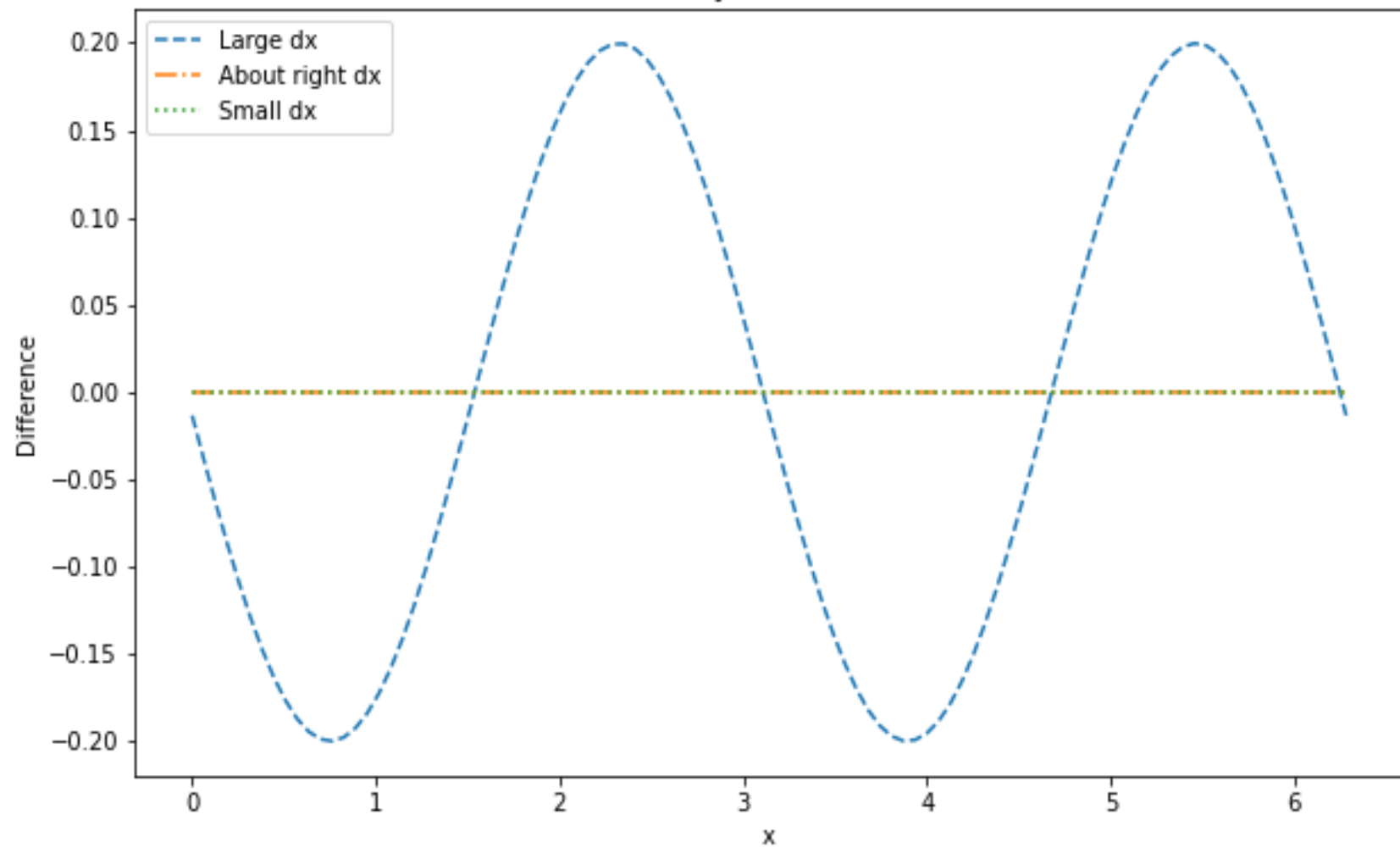
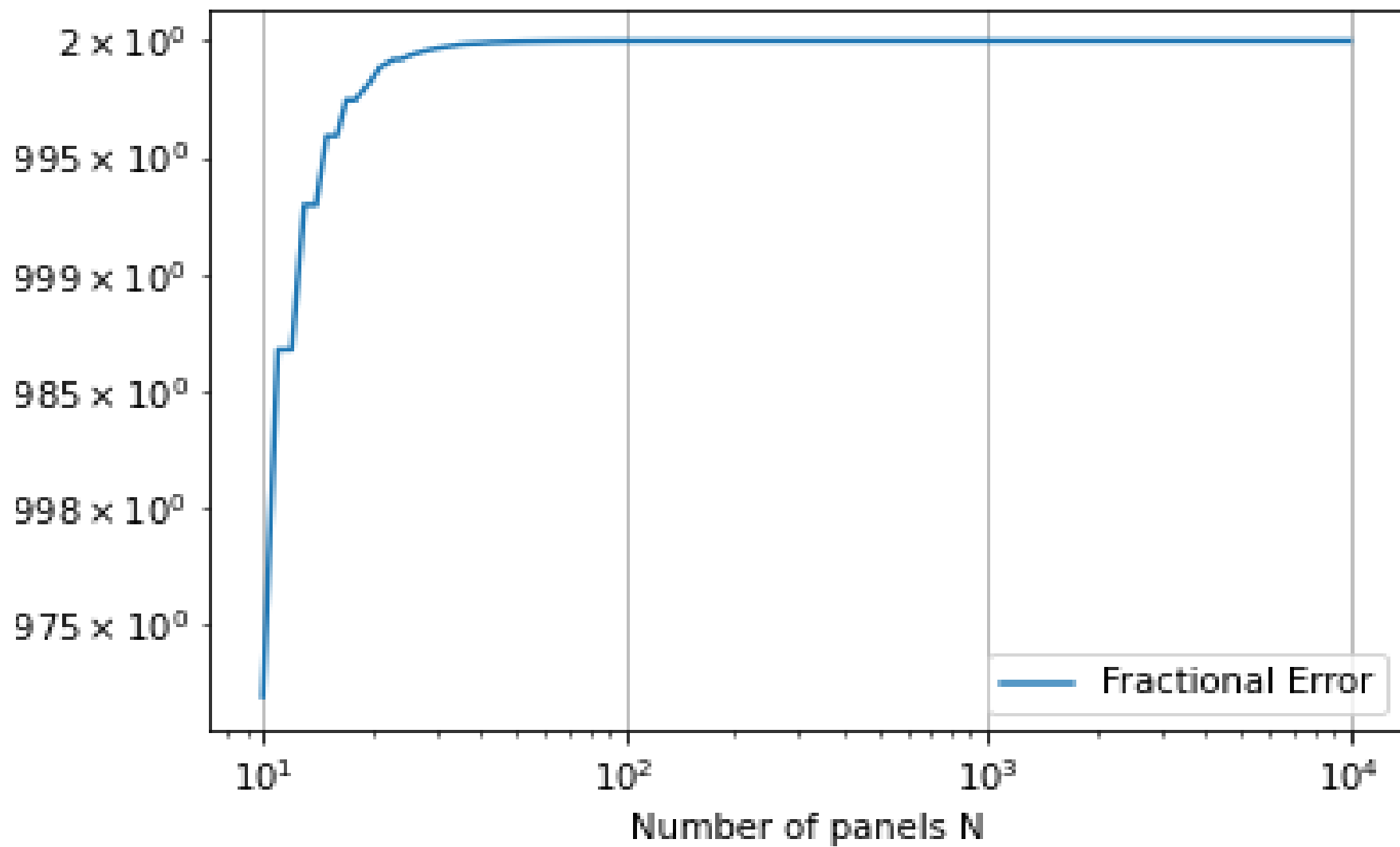


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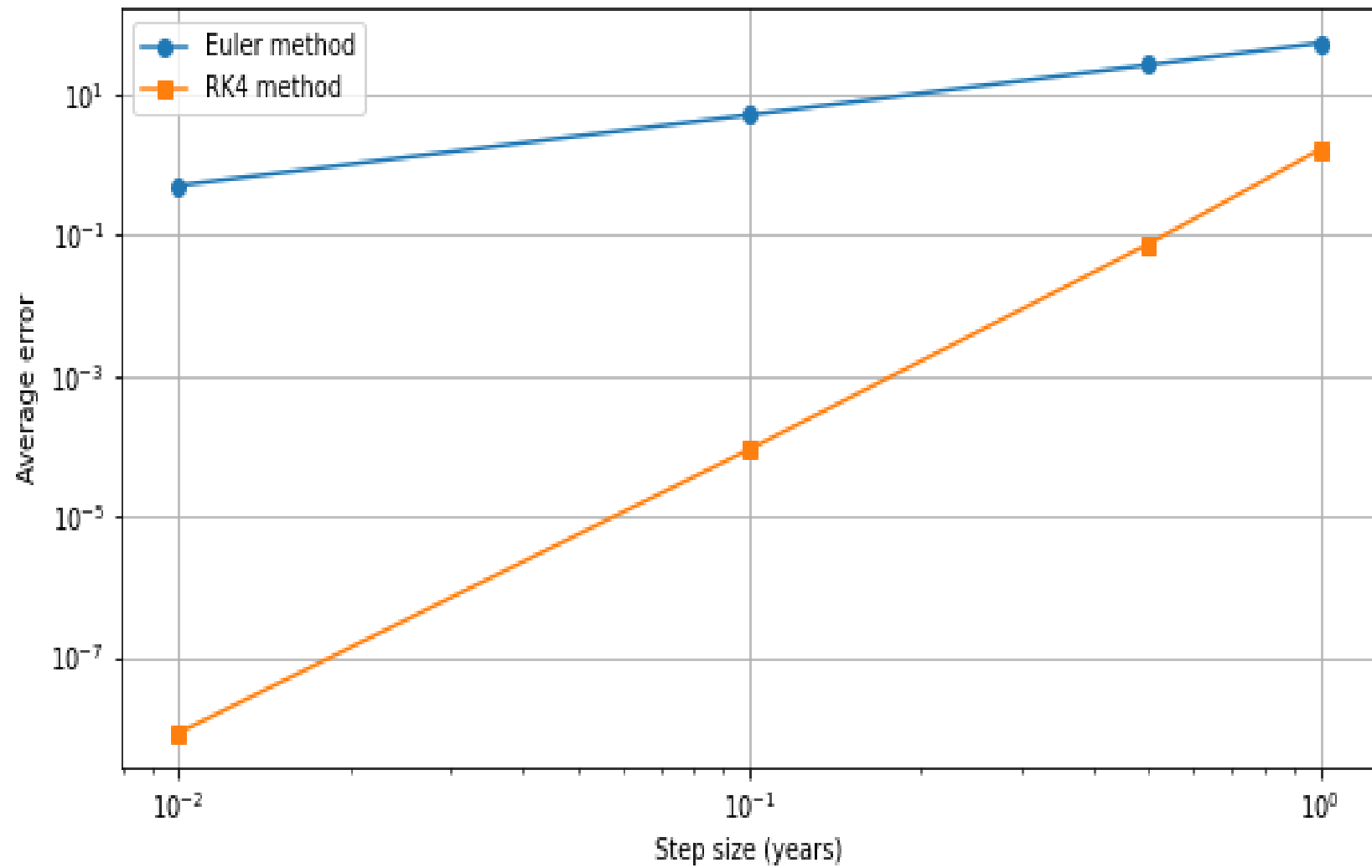
Difference between Analytical and Numerical Derivatives



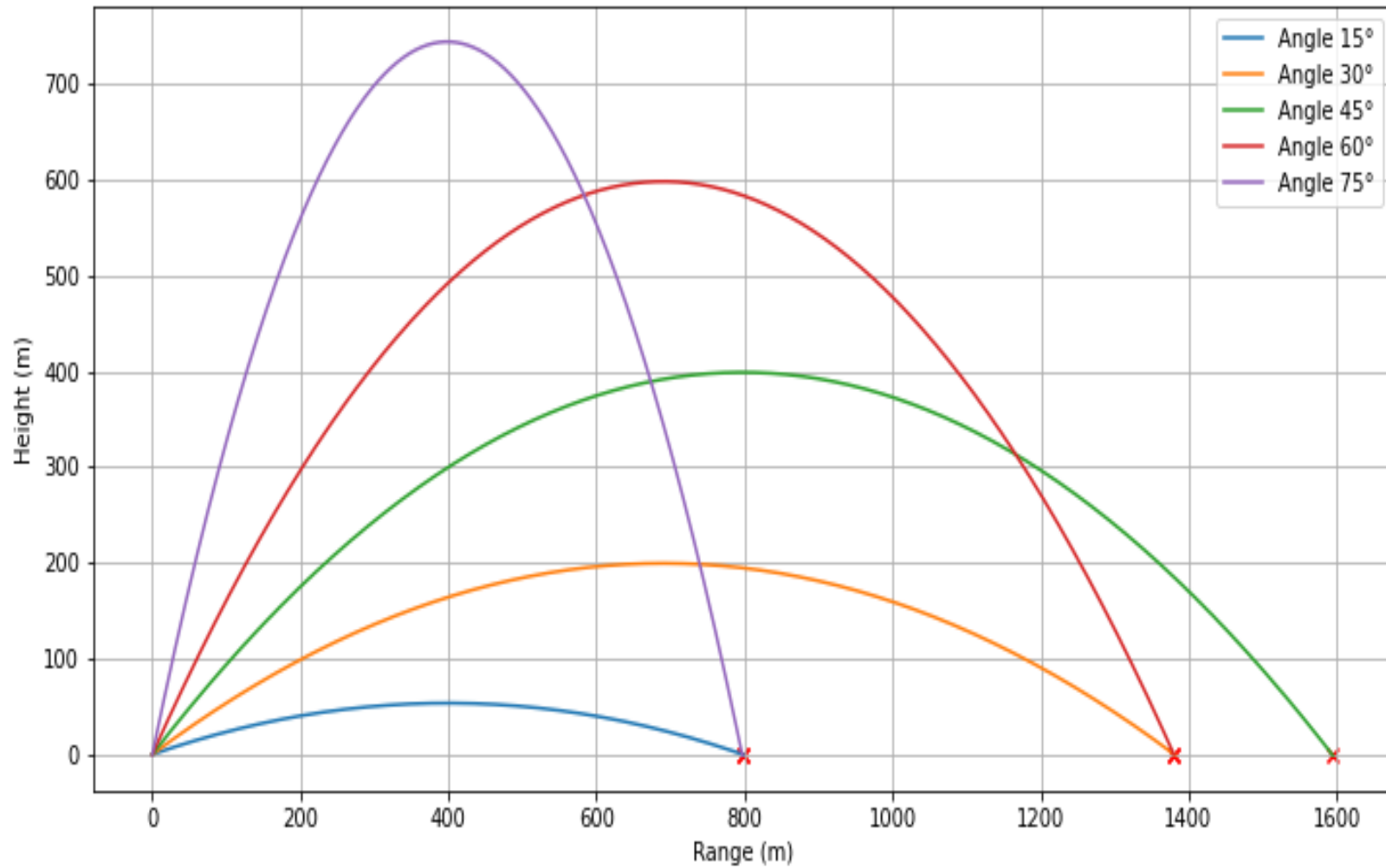
Fractional Error between Analytical and Simpson's Rule Integration



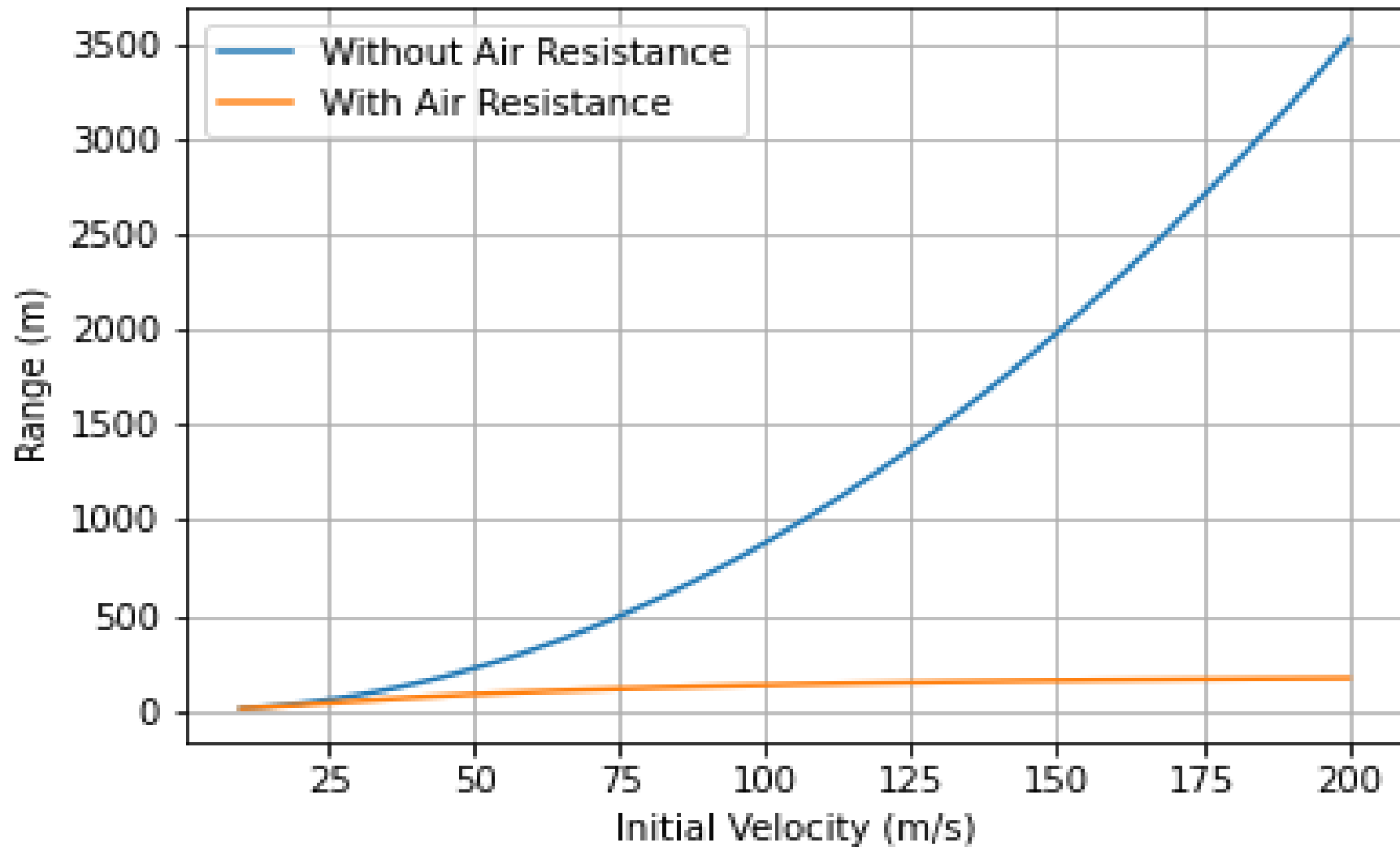
Comparison of Euler and RK4 errors with step size



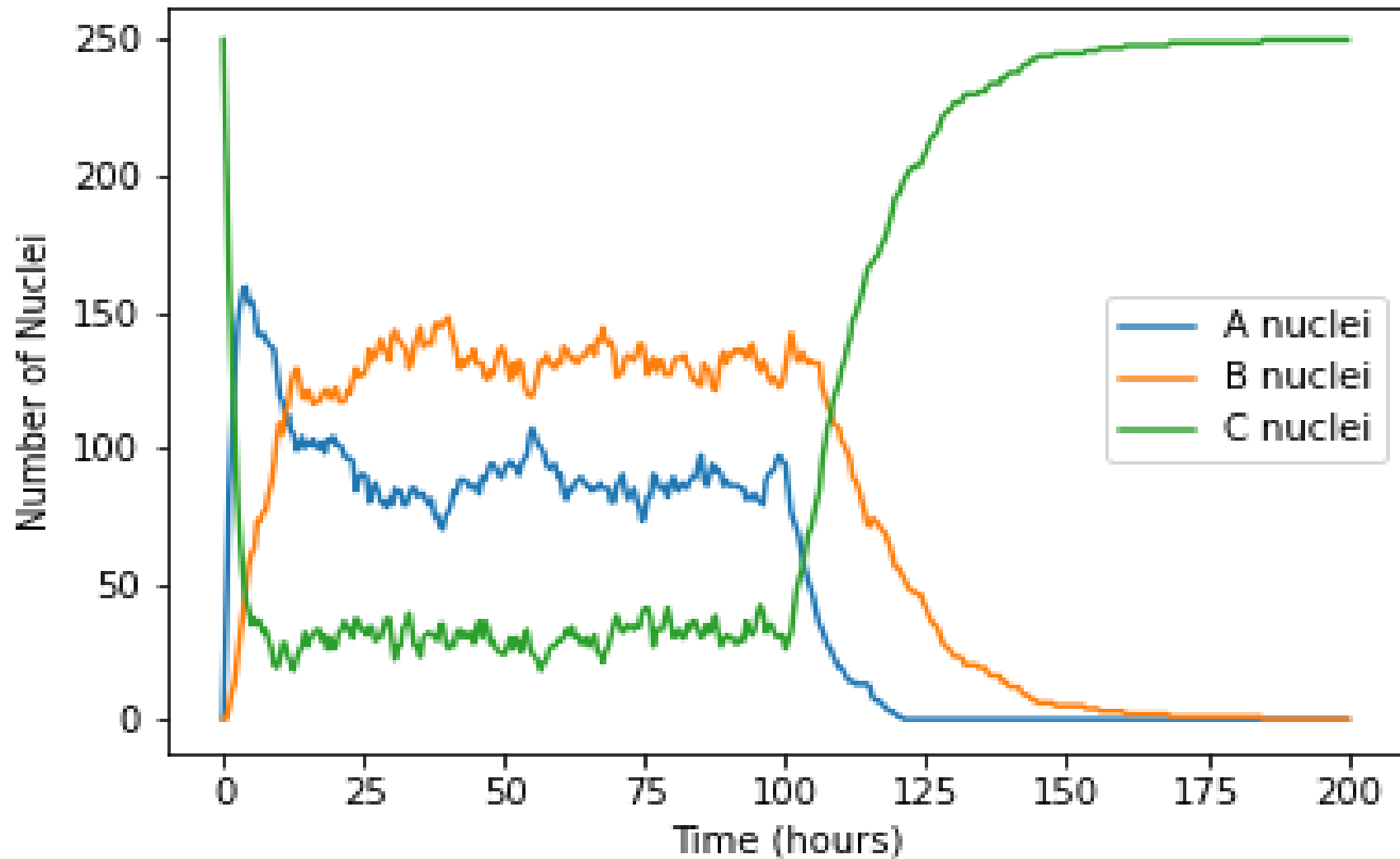
Projectile Trajectories for Various Angles with  $v_0 = 125\text{m/s}$



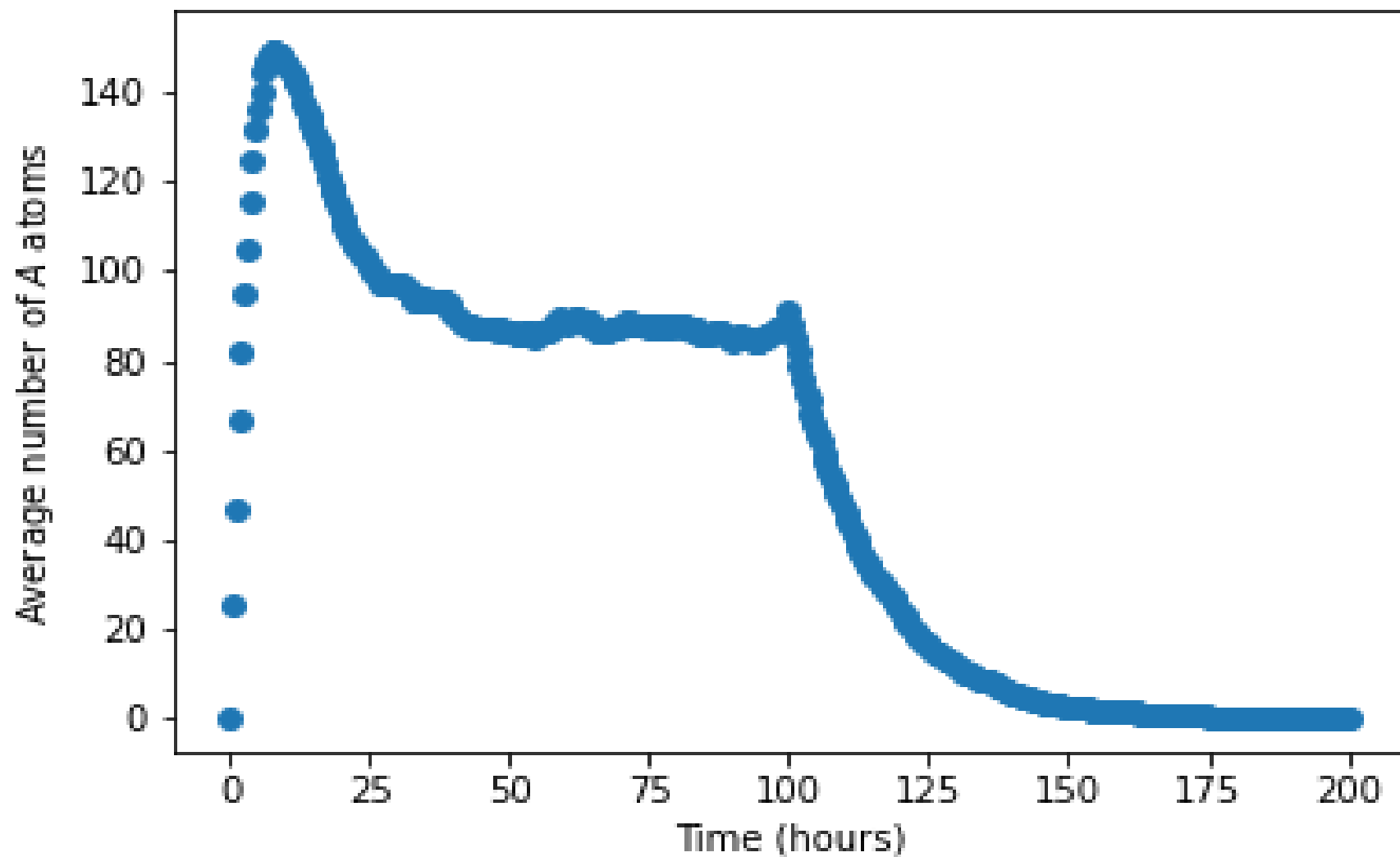
Projectile Range vs Initial Velocity at 60°



Radioactive Decay and Activation of Nuclei Over Time

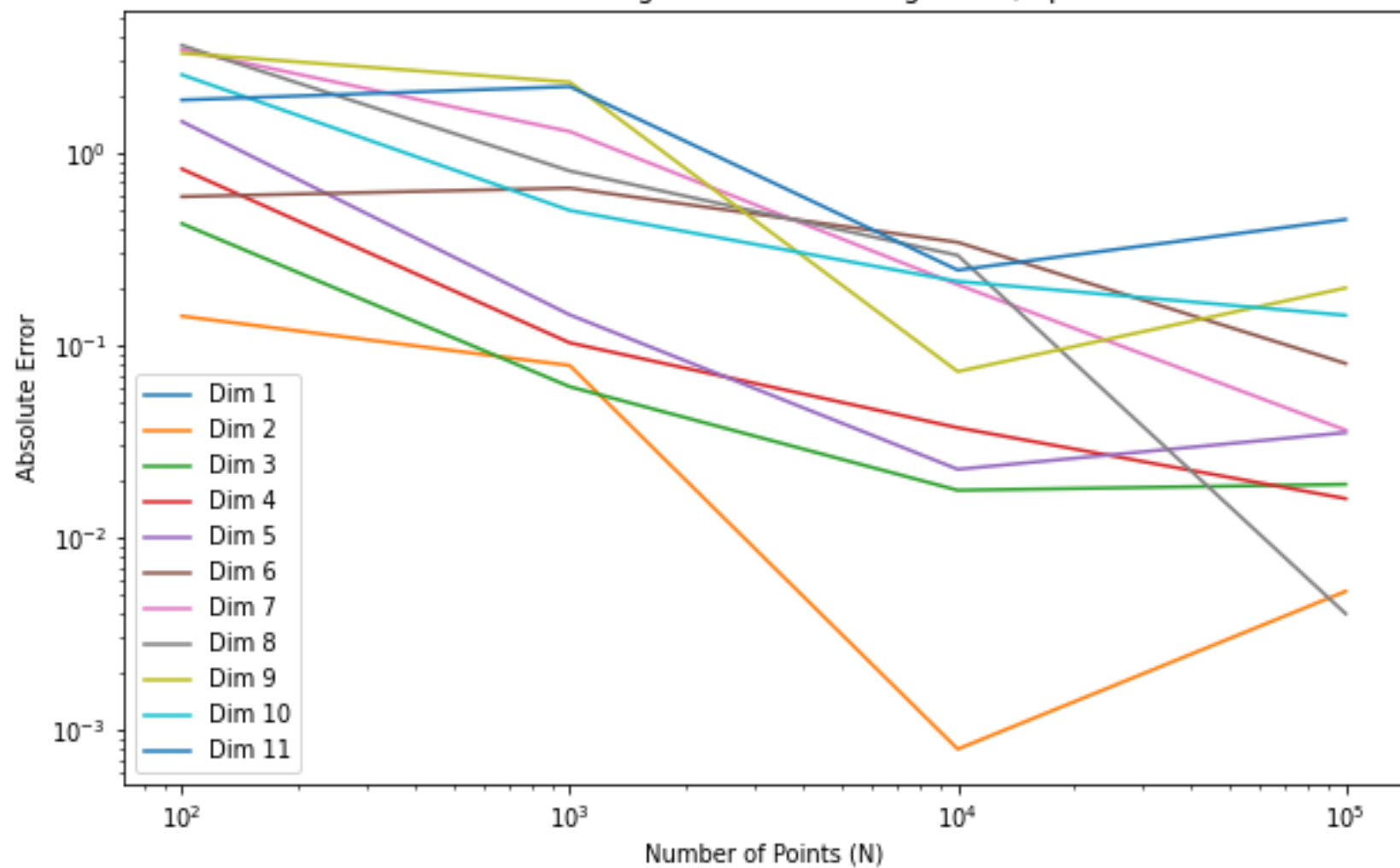


Average number of  $A$  atoms with and without neutron flux

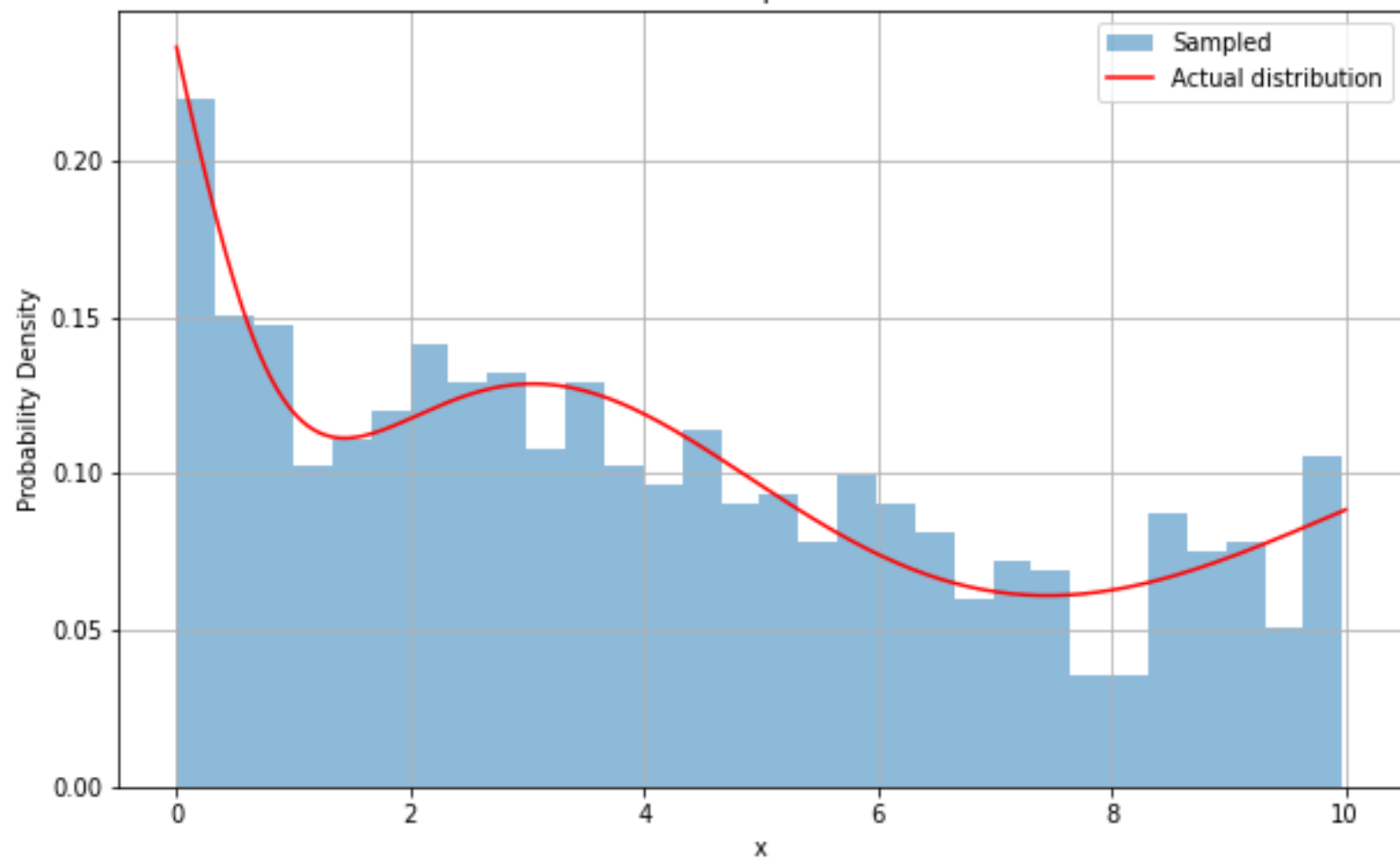




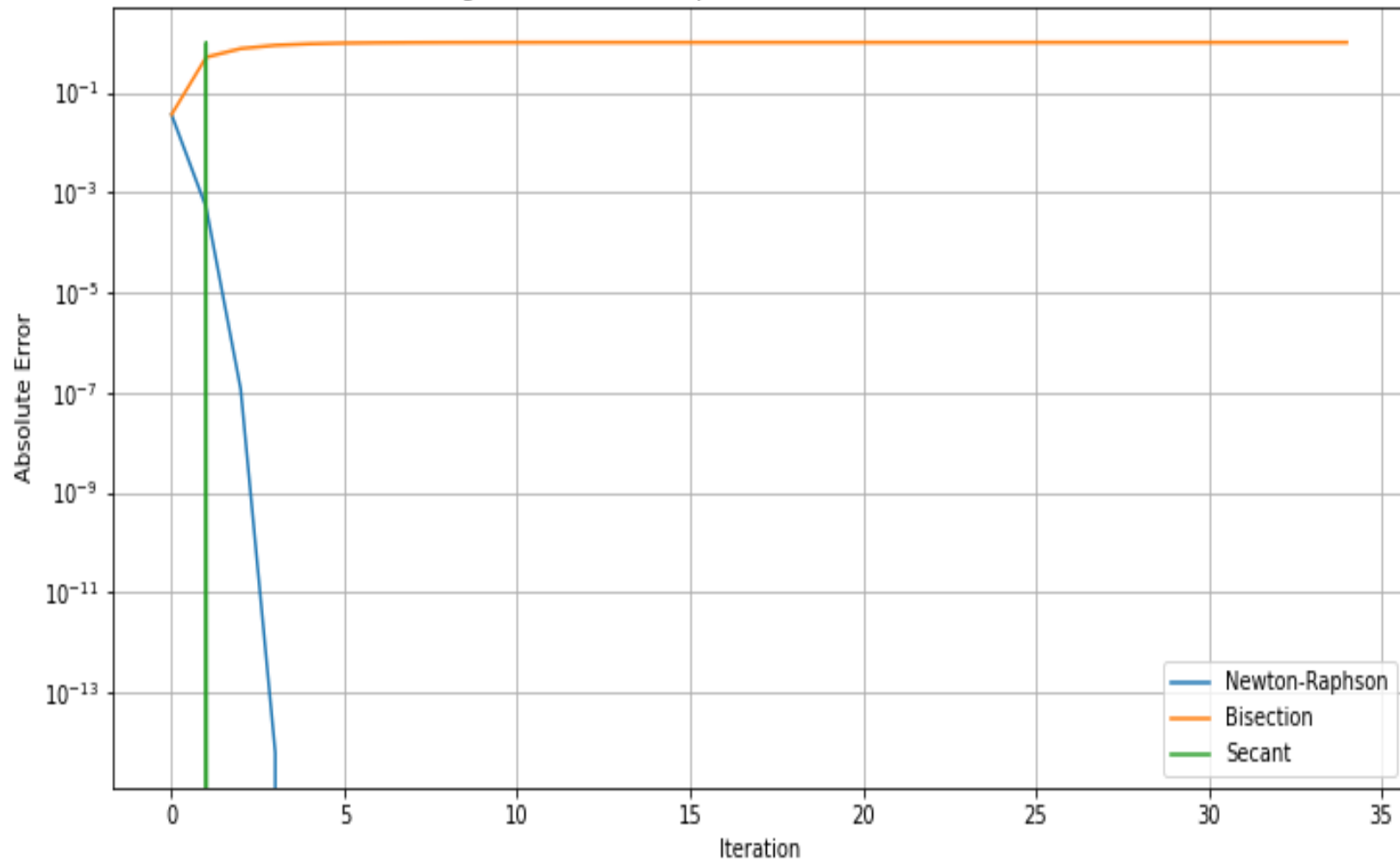
Monte Carlo Integration Error Scaling with  $1/\sqrt{N}$



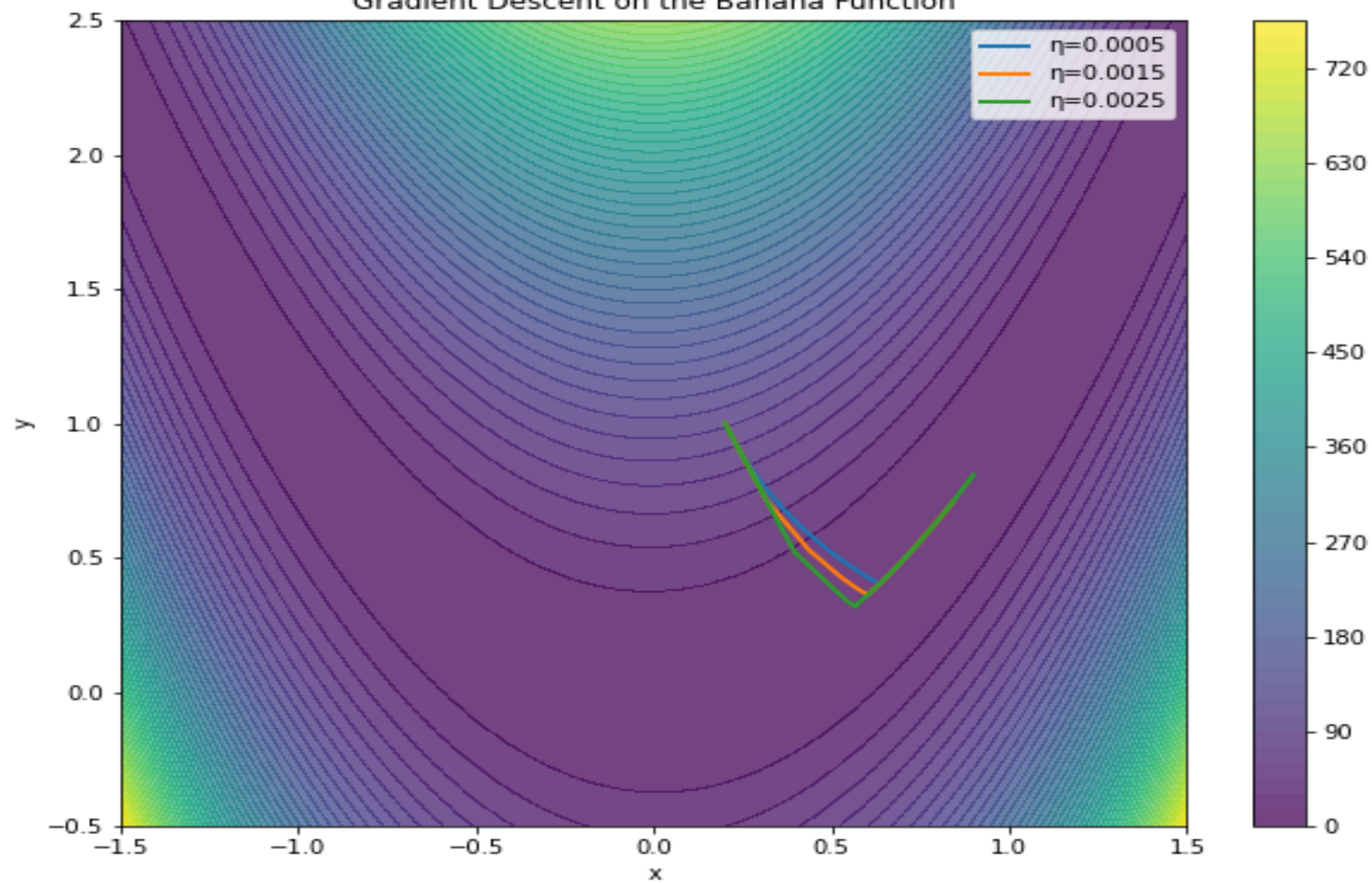
Generated Sample Distribution



Convergence of Newton-Raphson, Bisection, and Secant Methods



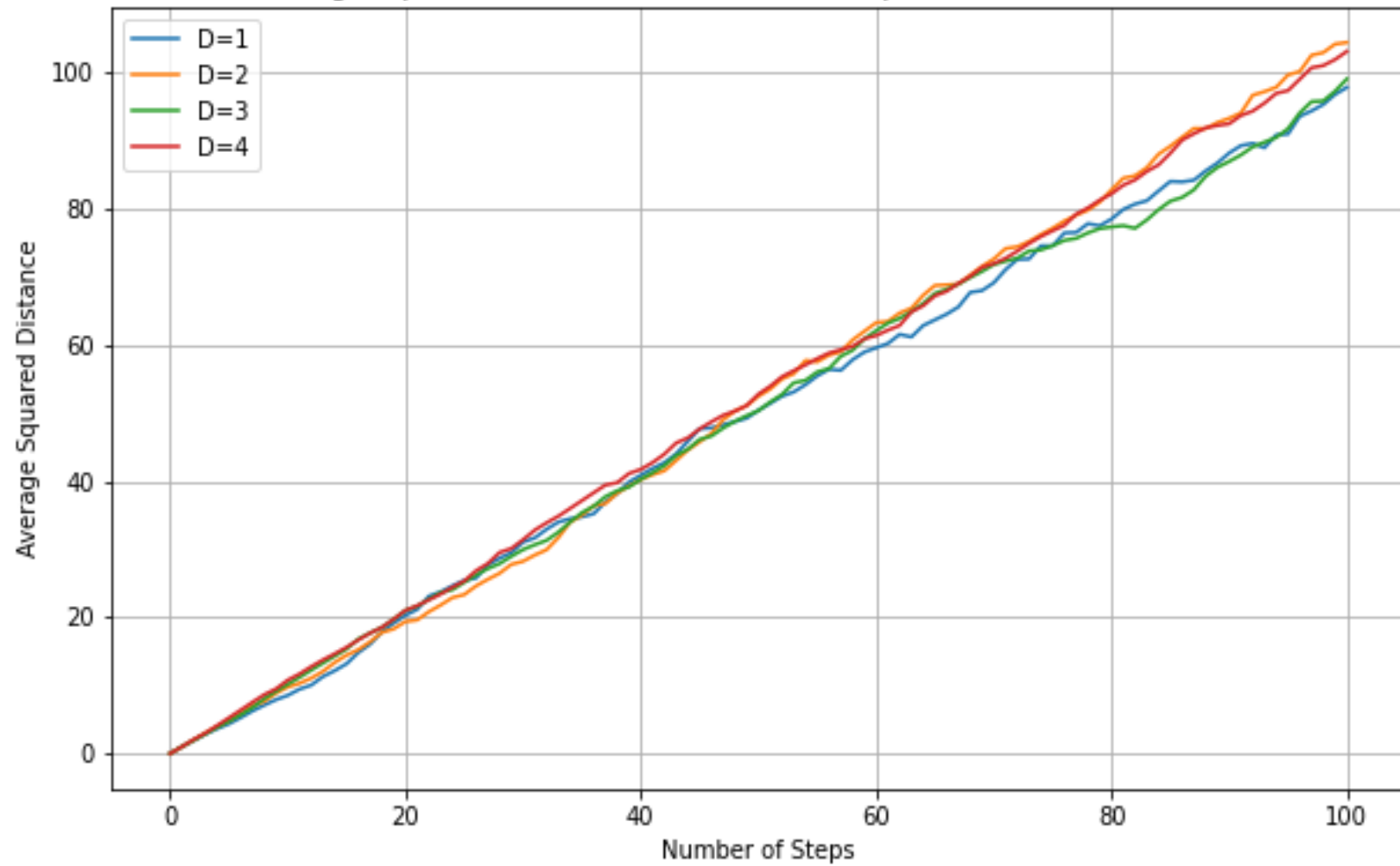
Gradient Descent on the Banana Function



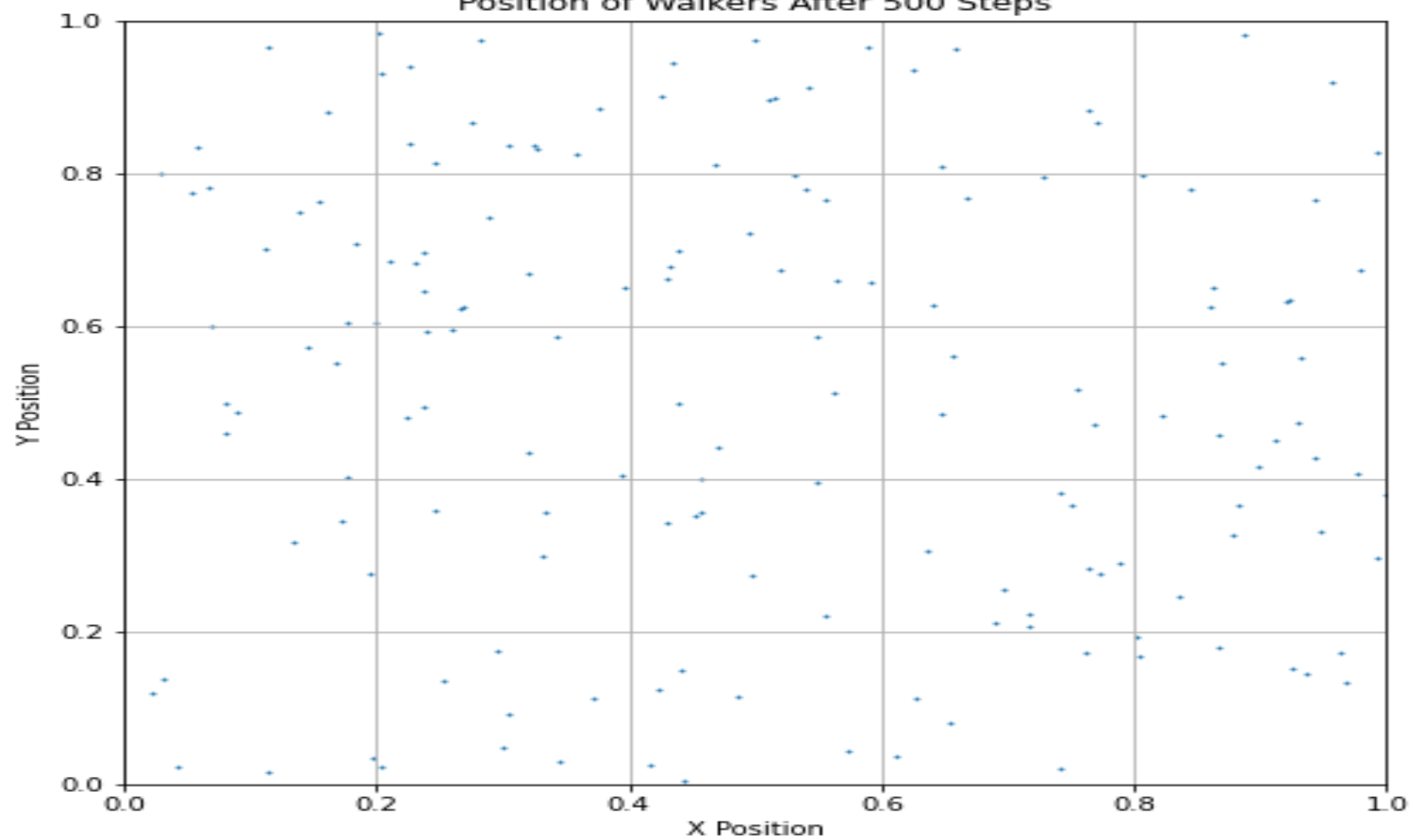
Average Position and Average Squared Position of 1D Random Walkers



Average Squared Distance vs. Number of Steps for Different Dimensions



Position of Walkers After 500 Steps



AI?