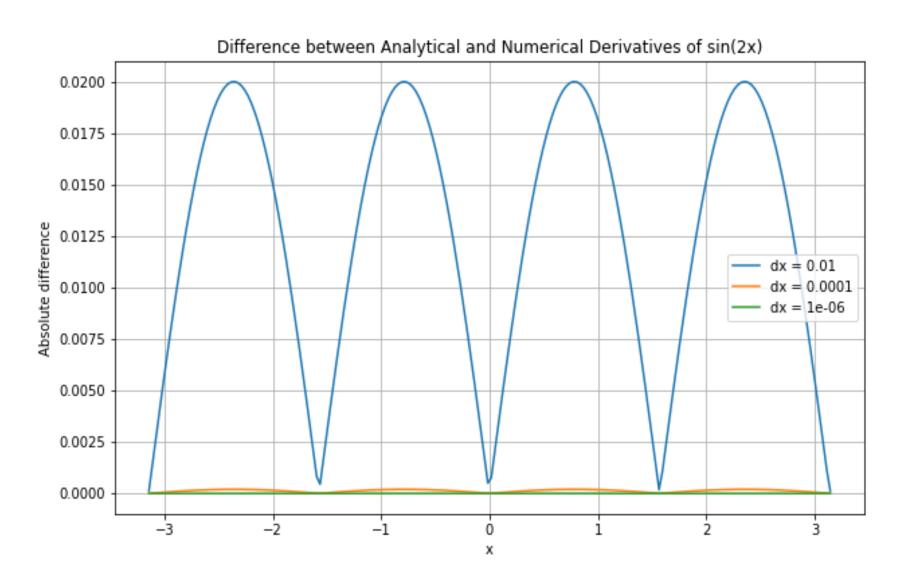
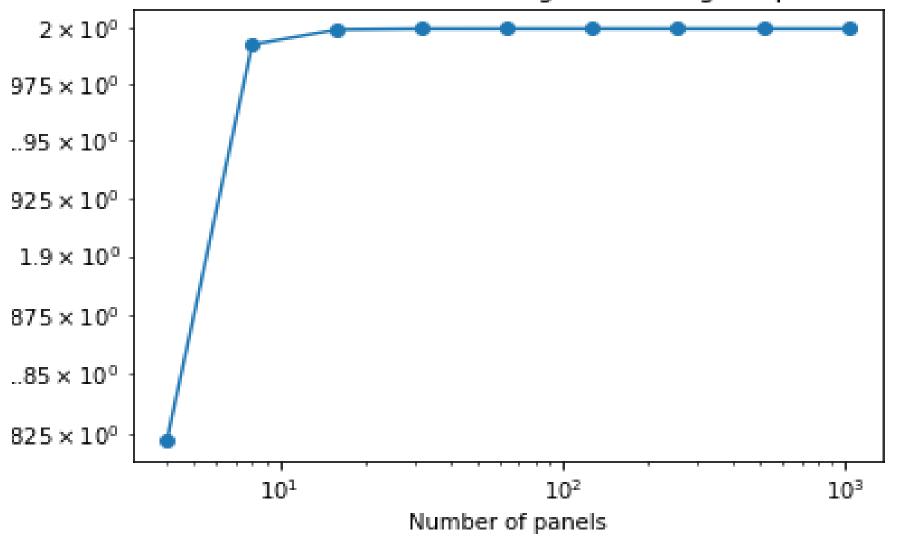
# 

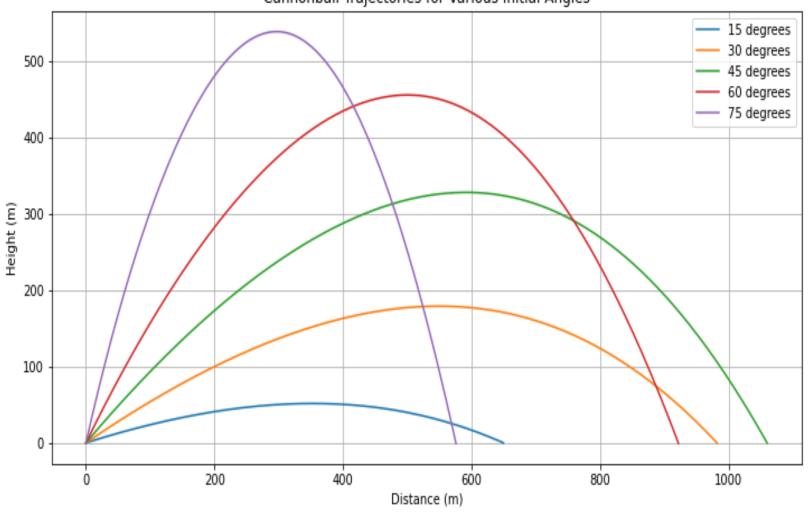


Fractional error in numerical integration using Simpson's rule

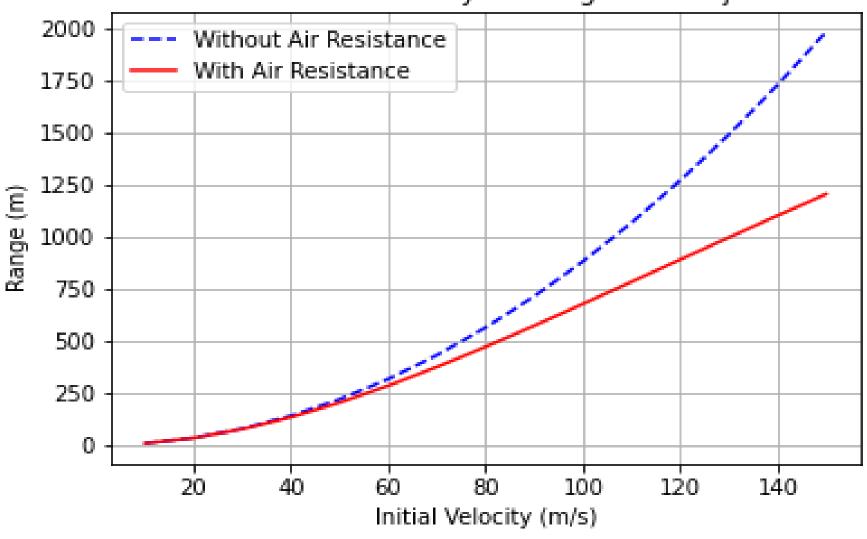


Error in Euler and RK4 Methods for Radioactive Decay of Carbon-14  $10^{3}$  $10^2$ Error (Infinity Norm) 10¹ 10°  $10^{-1}$ Euler Method RK4 Method 10<sup>3</sup> 10<sup>2</sup> 10<sup>1</sup> Number of Steps

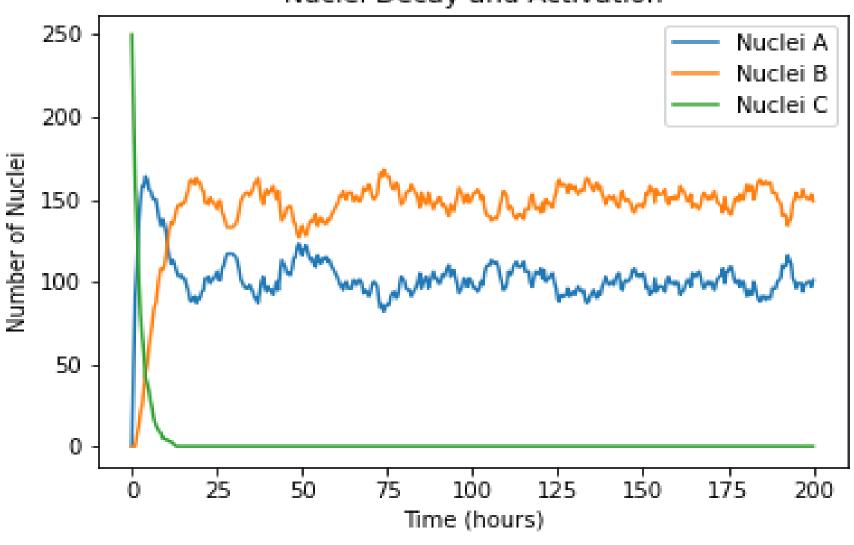
#### Cannonball Trajectories for Various Initial Angles



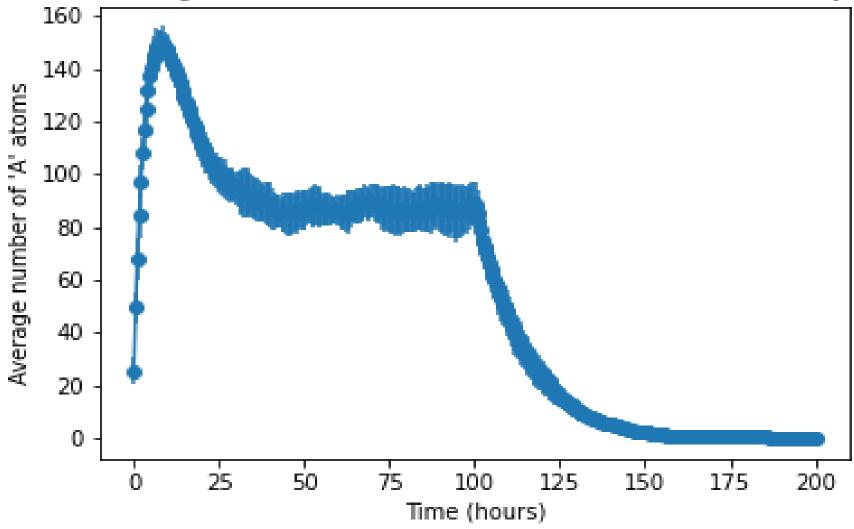
### Effect of Initial Velocity on Range of a Projectile



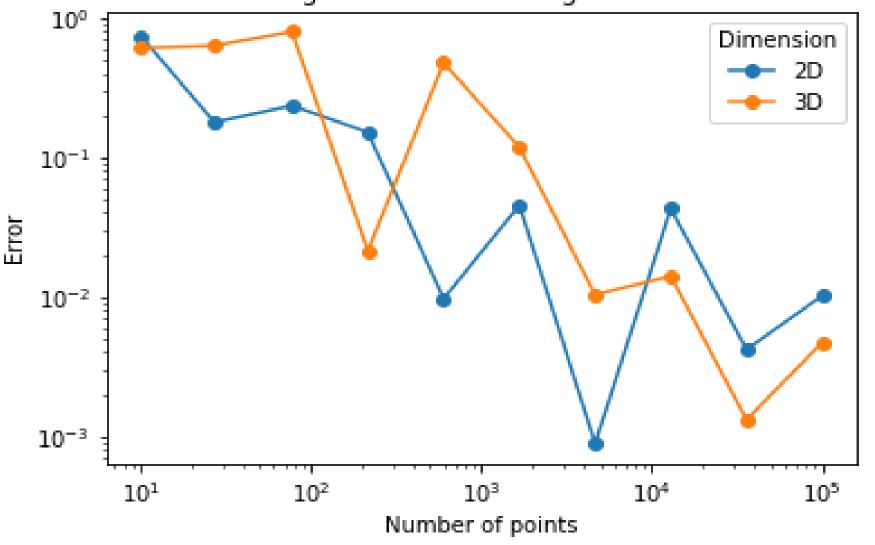
# Nuclei Decay and Activation



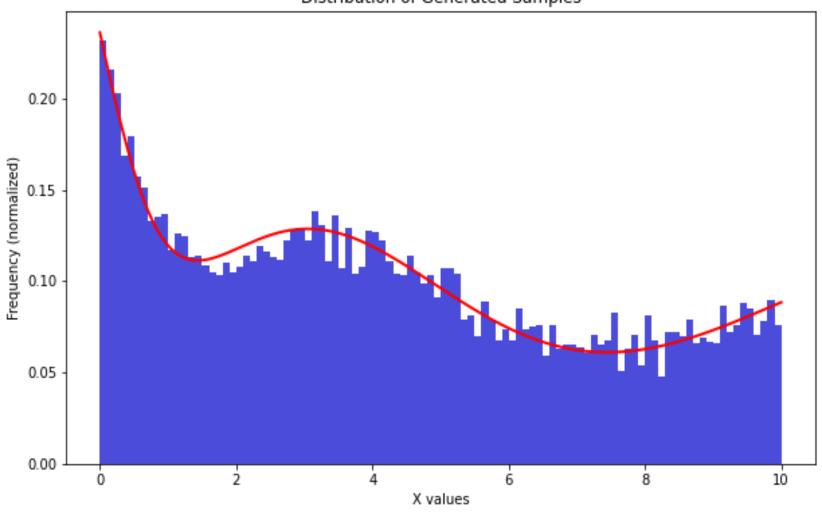
Average number of 'A' atoms vs. Time with Uncertainty



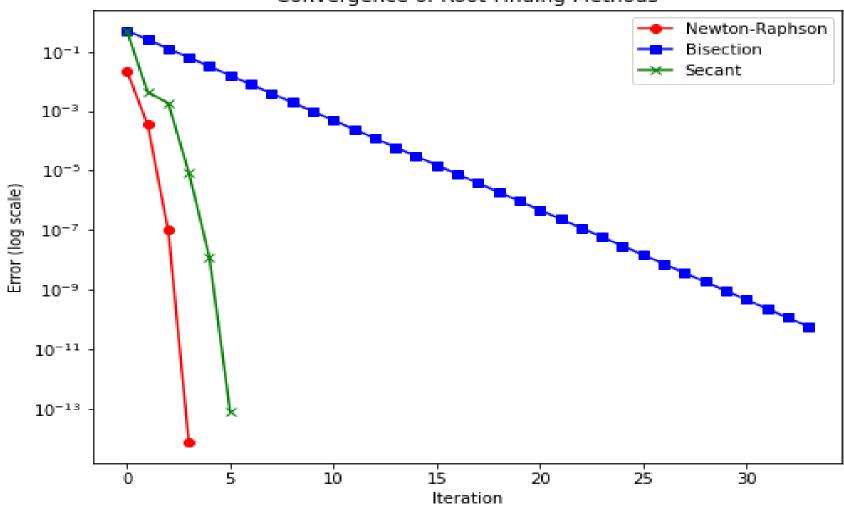
Monte Carlo Integration Error Scaling with Number of Points



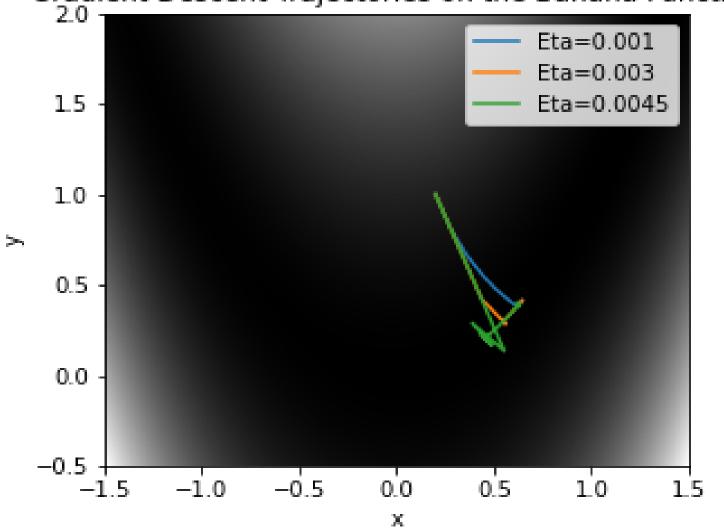
#### Distribution of Generated Samples



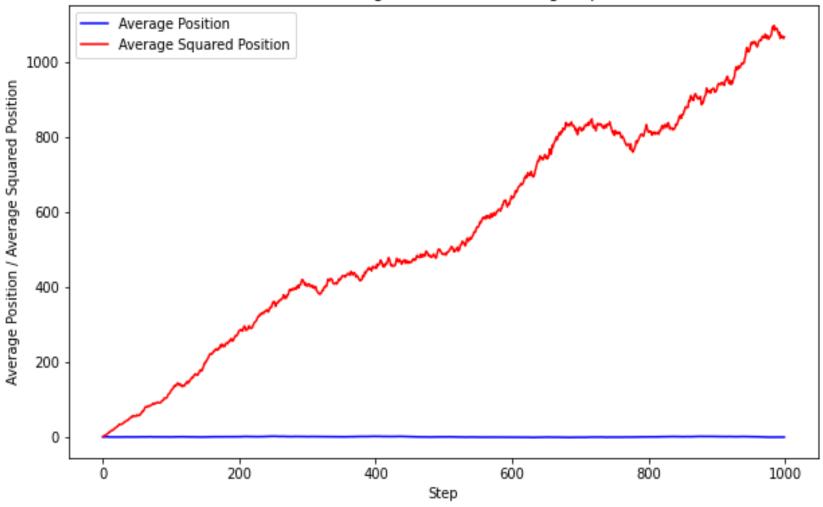
#### Convergence of Root-Finding Methods



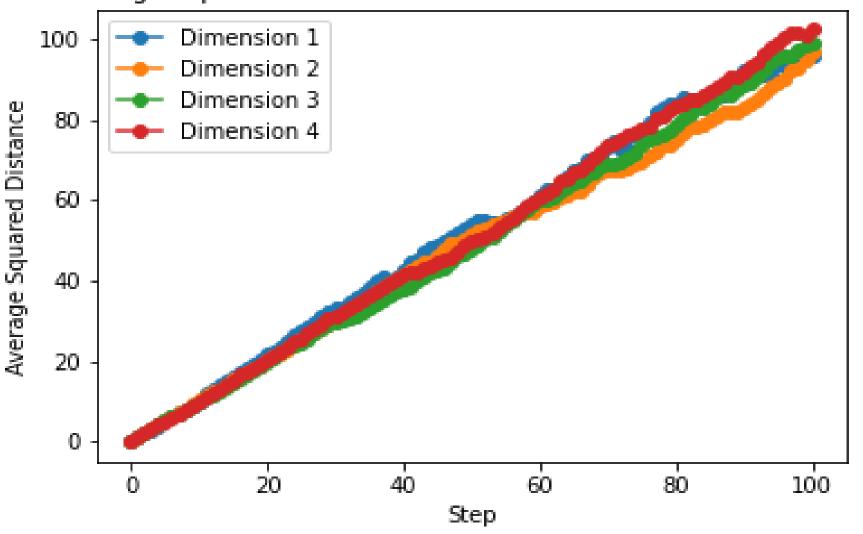
Gradient Descent Trajectories on the Banana Function

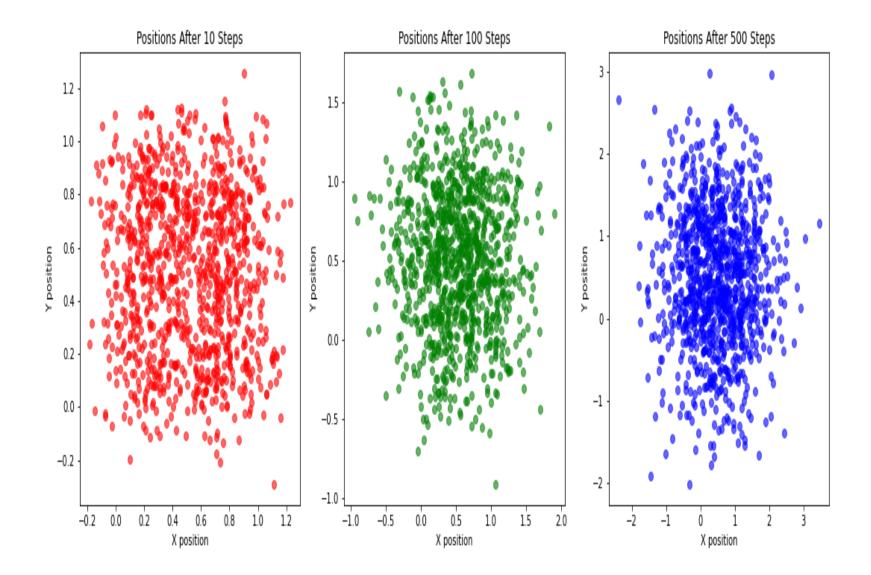


1D Random Walk: Average Position and Average Squared Position



## Average Squared Distance of Walkers in Different Dimensions





# AI?