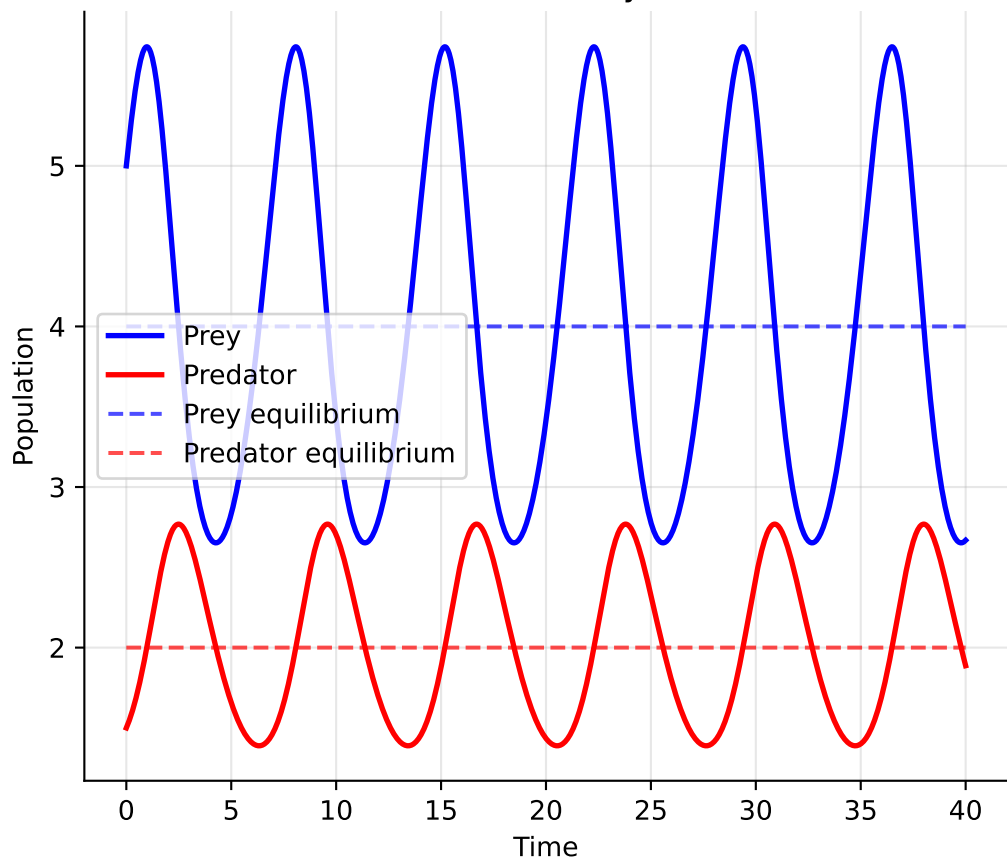
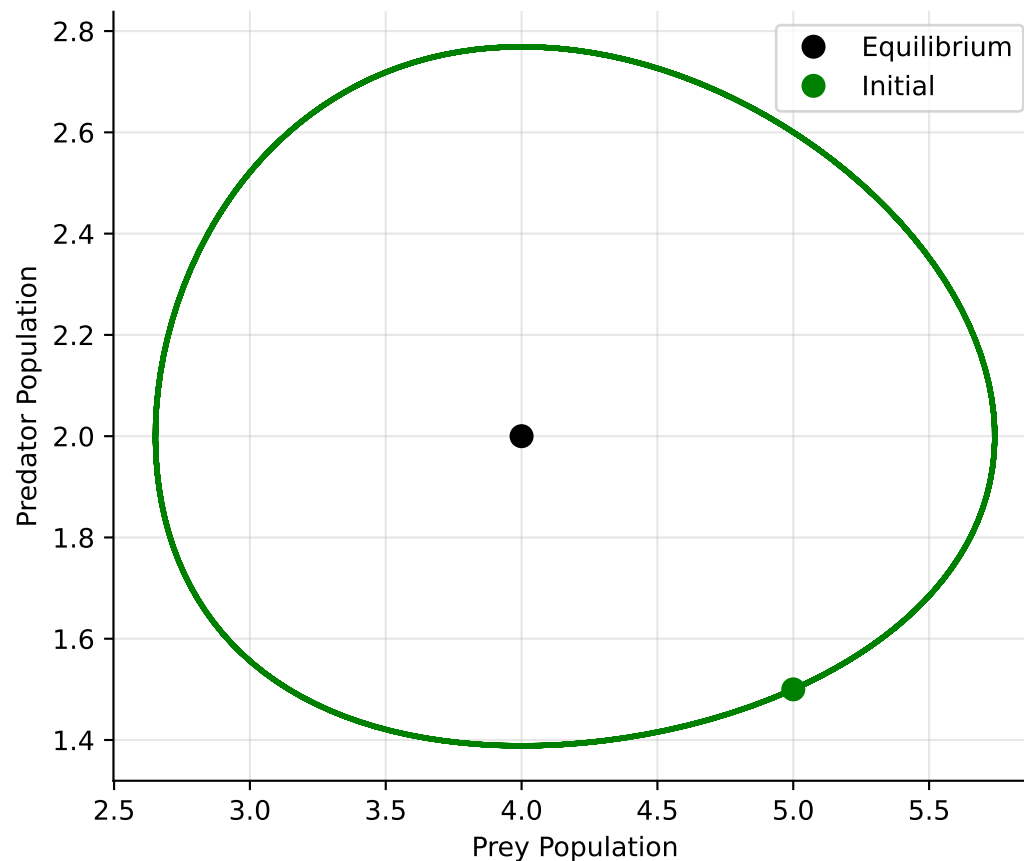


Mathematical Modeling and Simulation

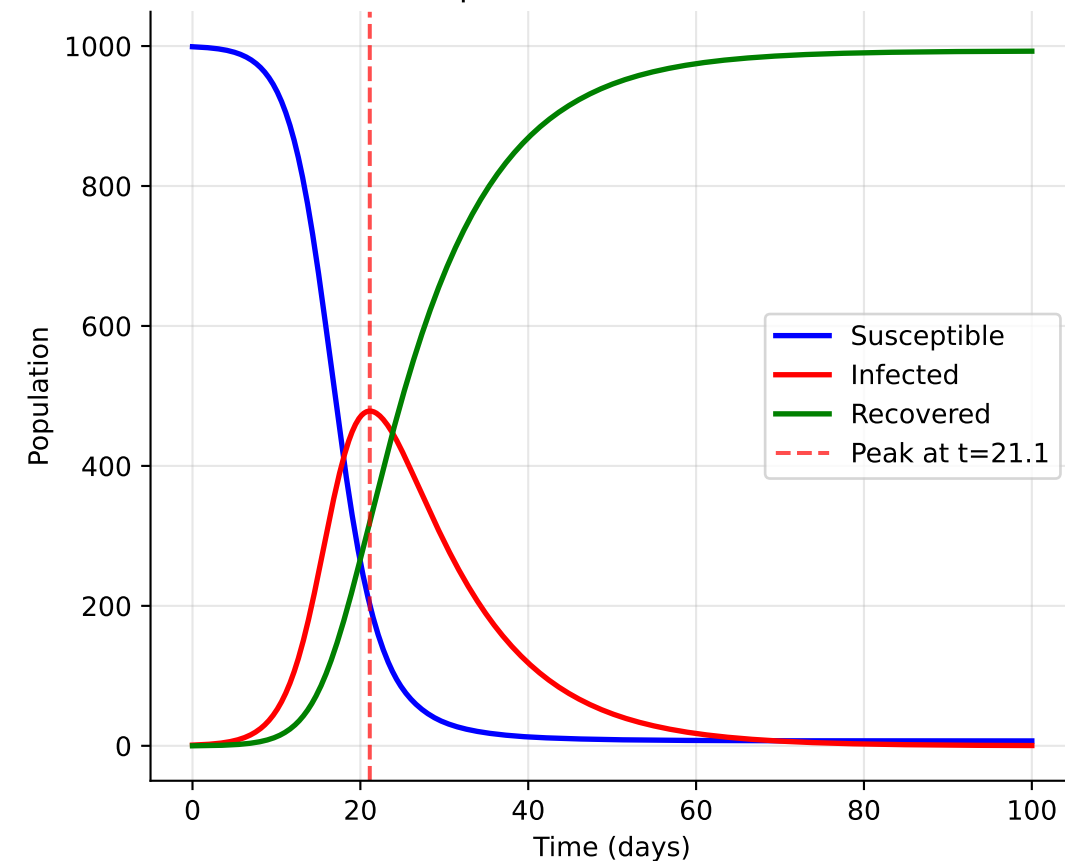
Lotka-Volterra System



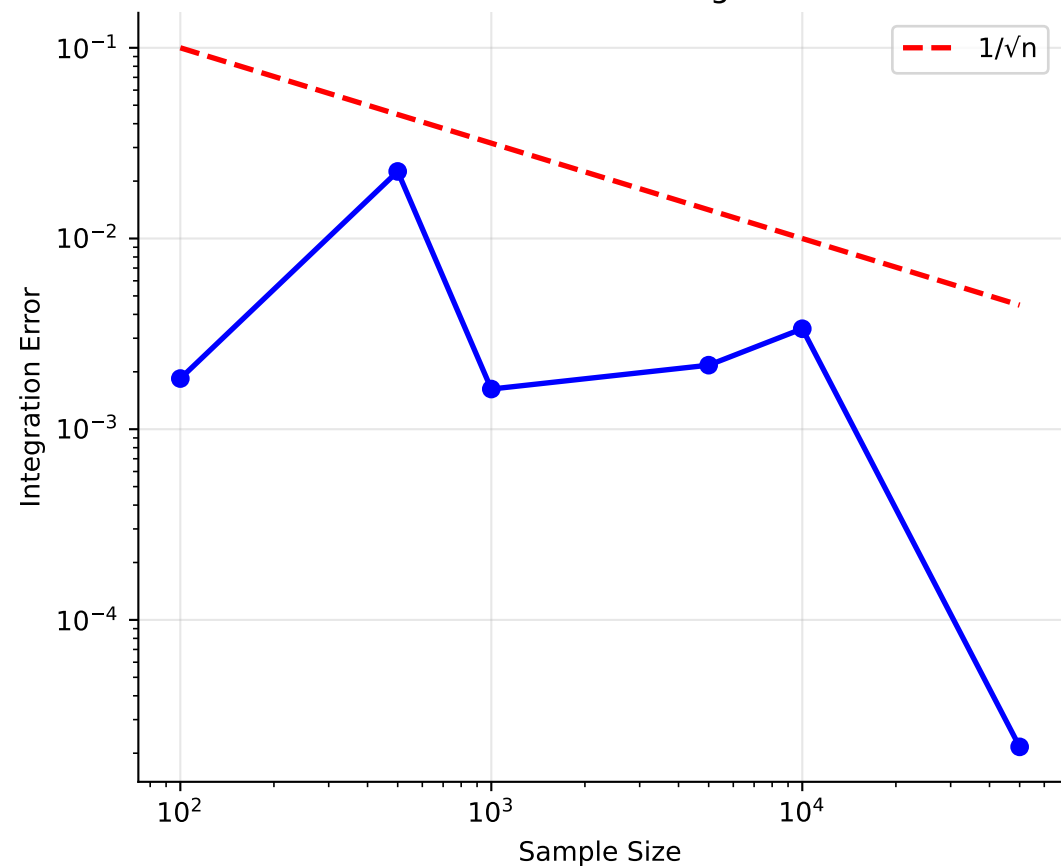
Phase Portrait



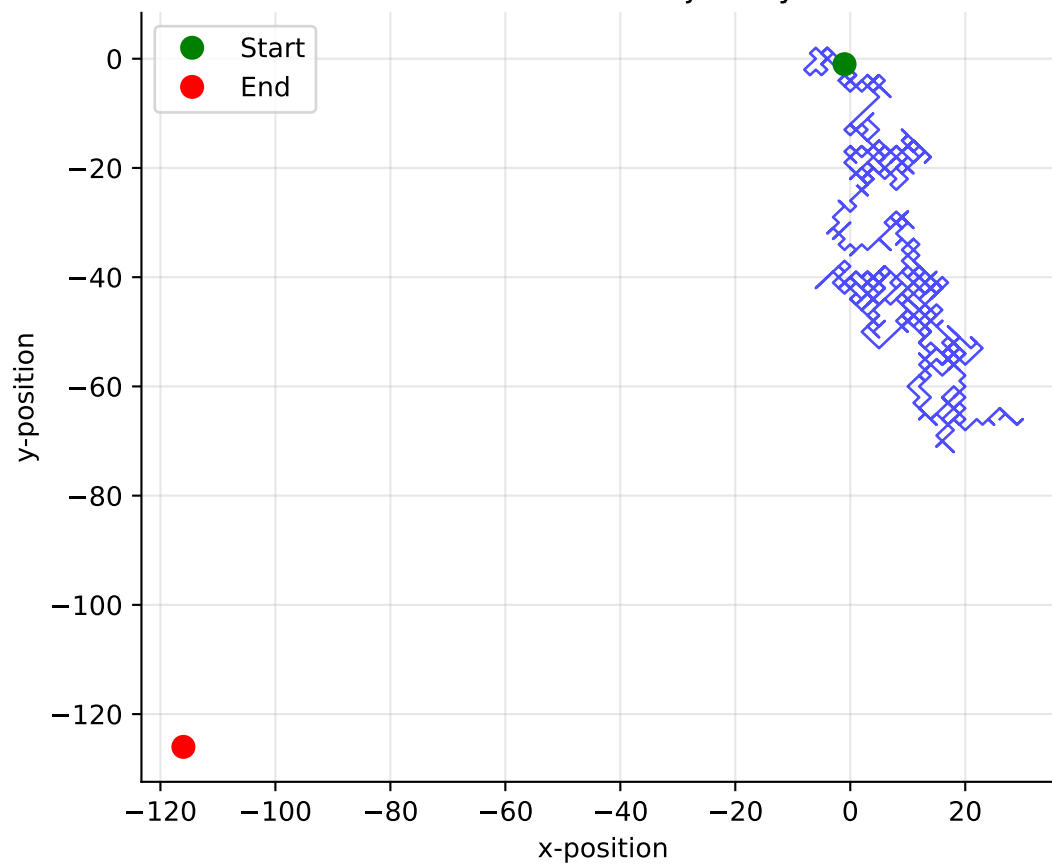
SIR Epidemic Model (R0=5.0)



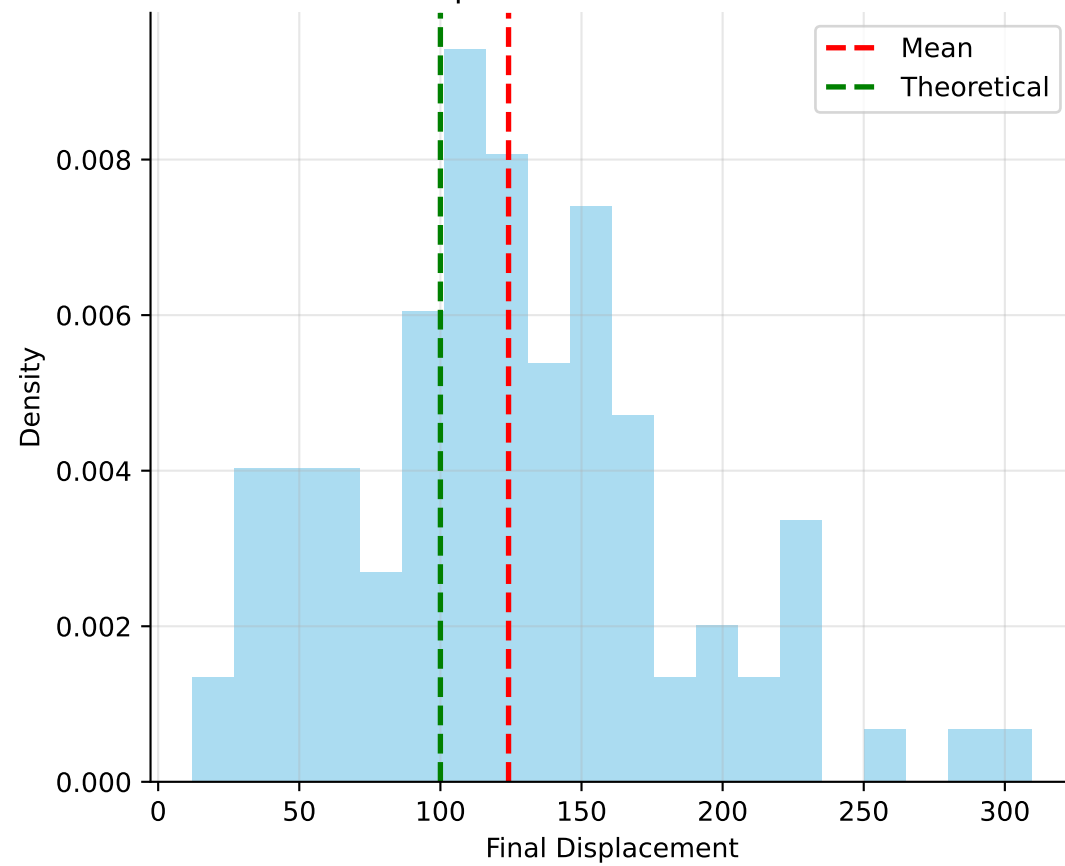
Monte Carlo Convergence



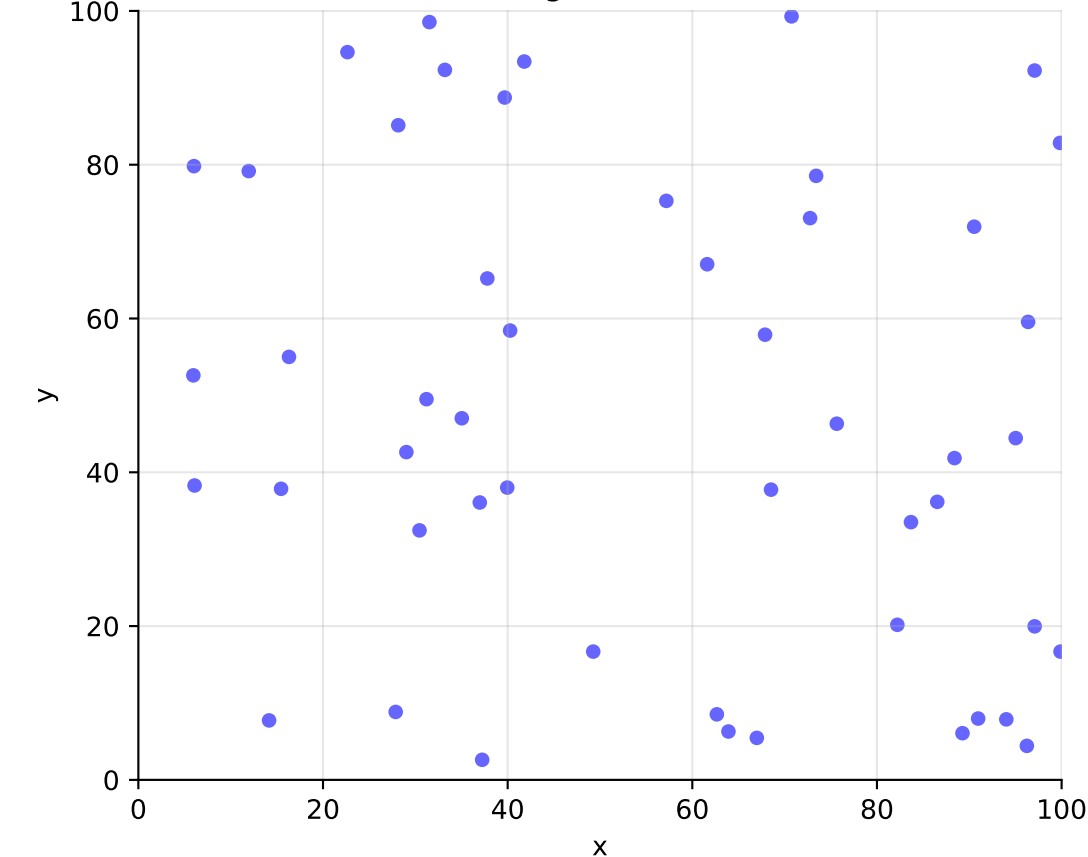
Random Walk Trajectory



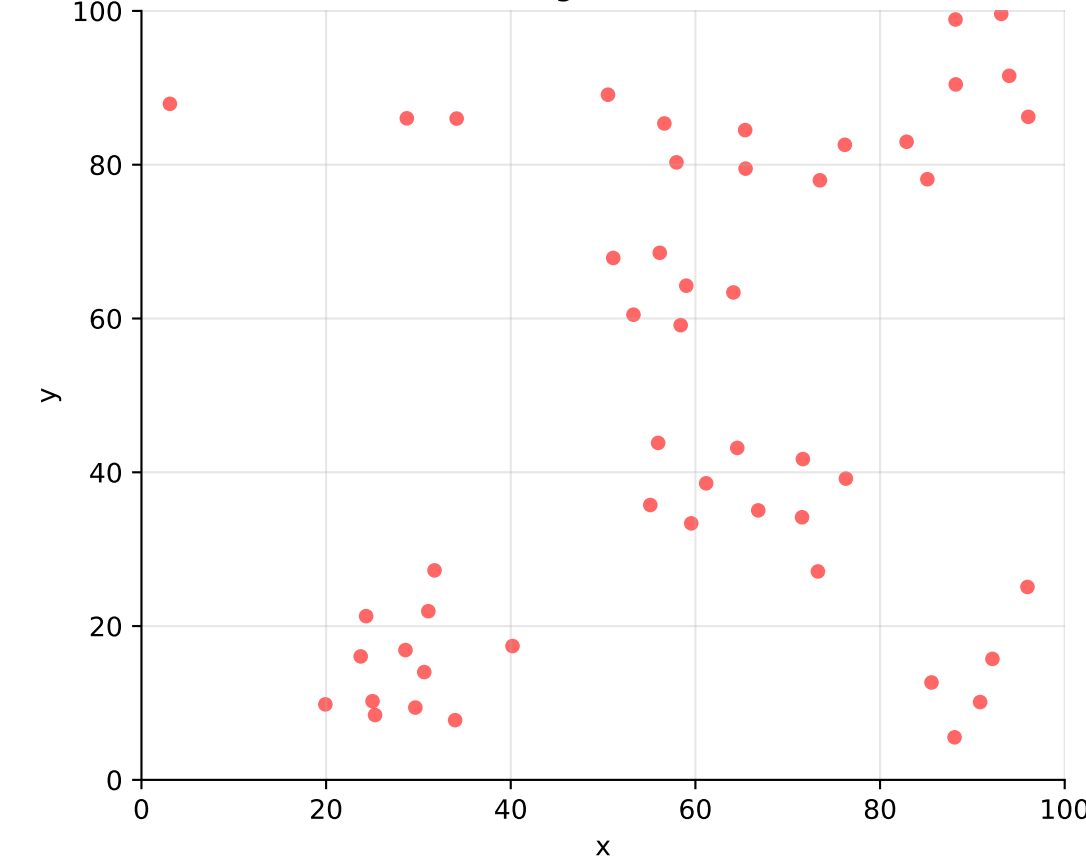
Displacement Distribution



Flocking: Initial State



Flocking: Final State



Modeling Approaches

