

MEEN 432 Project 1 S1

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1 Plot 1: Max Simulation Error vs Time Step

Max simulation Error vs time step, for the different fixed time step Integration methods.

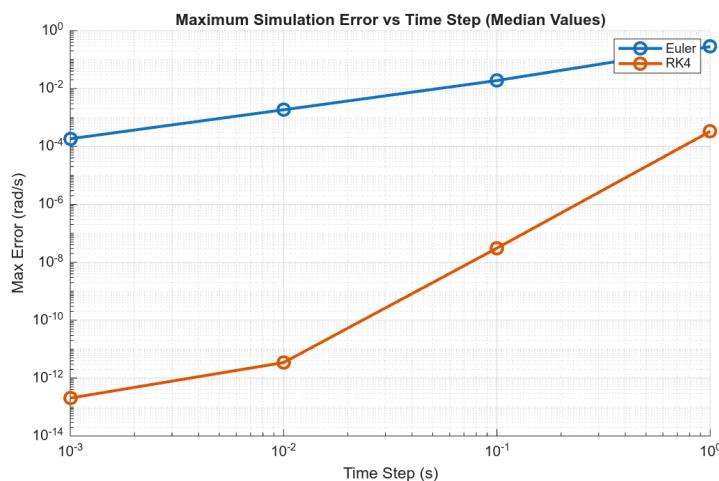


Figure 1: Maximum simulation error versus time step for fixed time step integration methods.

2 Plot 2: CPU Time vs Time Step

CPU Time taken vs time step, for the different fixed time step integration method.

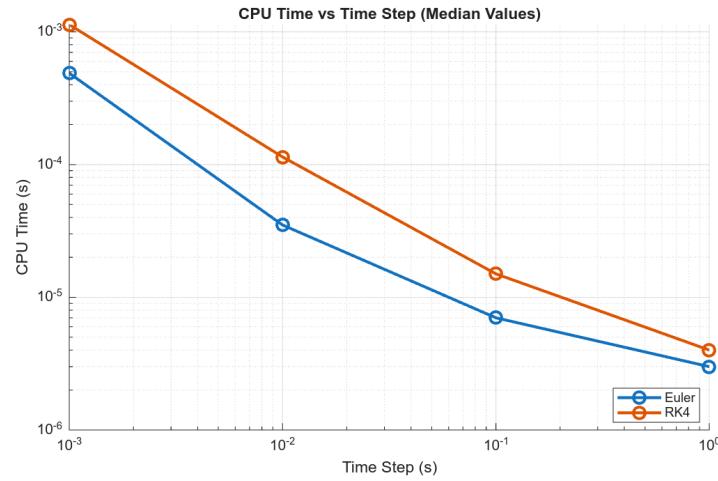


Figure 2: CPU time versus time step for fixed time step integration methods.

3 Plot 3: Max Simulation Error vs CPU Time

Max simulation Error vs CPU Time taken for the simulation, for each of the different integration methods (both fixed time step and variable time step).

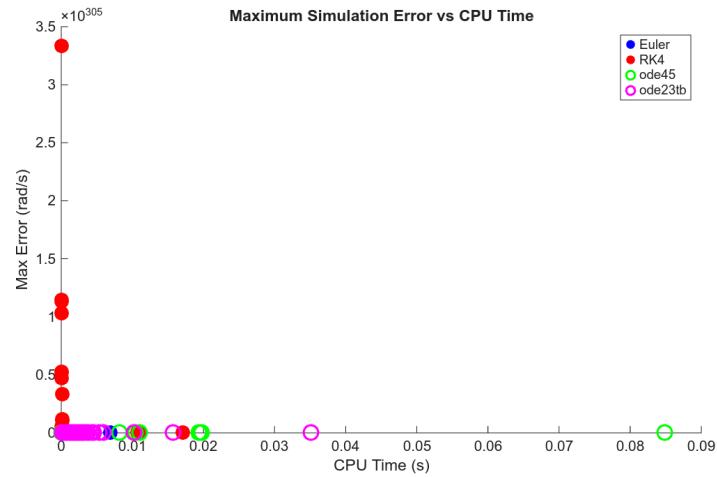


Figure 3: Maximum simulation error versus CPU time for all integration methods.

4 Plot 4: Contour Plot - System Eigenvalues

Contour plots of constant system eigen values with Max Sim Error on y axis and CPU time on x axis.

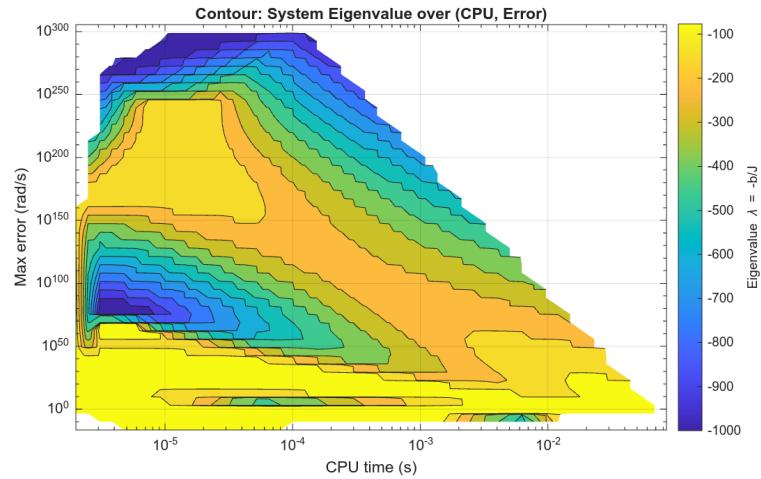


Figure 4: Contour plot showing system eigenvalues ($-b/J$) with error and CPU time.

5 Plot 5: Contour Plot - Input Frequencies

Contour plots of constant input frequencies with Max Sim Error on y axis and CPU time on x axis.

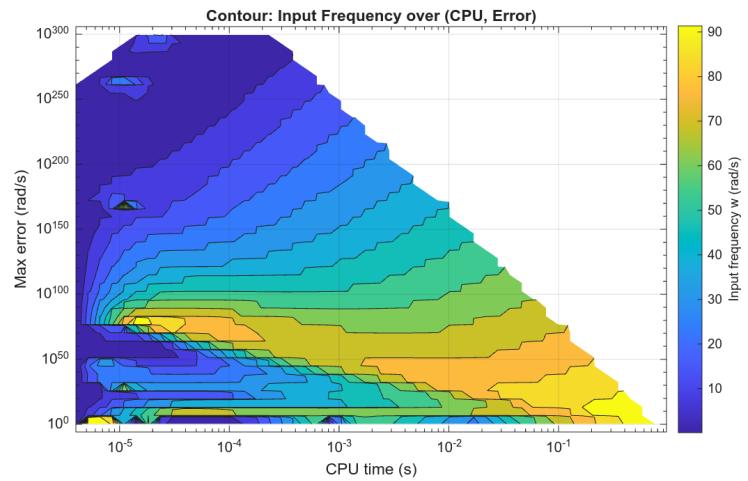


Figure 5: Contour plot showing input frequencies with error and CPU time for sinusoidal cases.