“Binary Star Orbits” Simulation Method

• **Run:** John_Noonan_Binary_Orbits.m

• **Simulation:** A planet orbits around two stars in a 3D environment.
  
  • 3D Runge-Kutta Method Orbit Simulation Procedure used.
  
  • Enhance simulation by varying initial velocities of stars → creates interesting orbits

• **Stability - given my initial conditions**
  
  • The binary stars orbit each other in a somewhat stable manner.
  
  • Planet orbits the binary stars also in a rather stable way.

• **Simulation shows both the bodies in orbit as well as each body rotating about its fixed center axis.**

• **Simulation also shows path taken by each body.**