1 Results

1.1 Euler and Verlet without oo

In order to make sure that our algorithm is running correctly, we will start solving the differential equation using both Euler's and Verlet's method without using object oriented(oo) code. The algorithms used to calculate the two are located in the following folders ((Euler) and (Verlet)
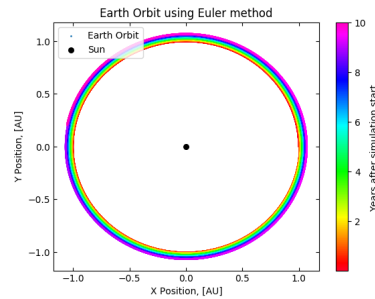

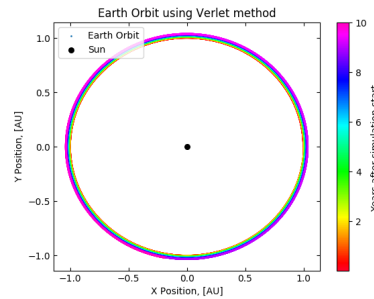Figure 1: Earth orbit around the Sun using Eulers method

Figure 2: Earth orbit around the Sun using Verlet's method

The stability of our algorithm is tested using different timesteps

Figure 3: Timestep: Figure 4: Timestep:

Initial value for velocity giving circular orbits 2pi Stability as function of different timesteps- plots of earths position.

Concercation of energy- kinetic + potential

Sammenlign resultetene med de tidligere.