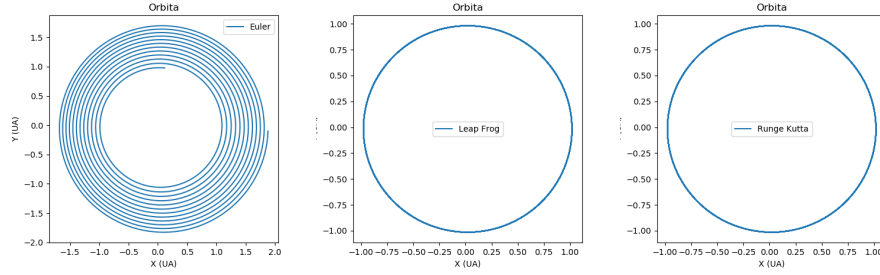


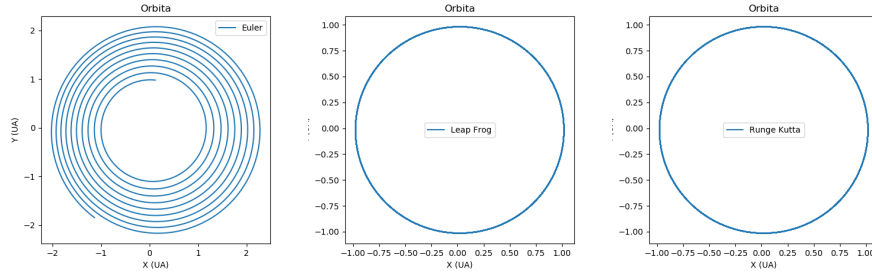
1 Comparación de diferentes métodos de solución de ecuaciones diferenciales ordinarias: una masa alrededor de otra.

A continuación se presentan los diferentes resultados obtenidos a partir de los metodos de Euler, LeapFrog y Runge Kutta de 4to orden para posiciones, velocidades, momento angular y energia total del sistema para la ecuacion ordinaria dada.

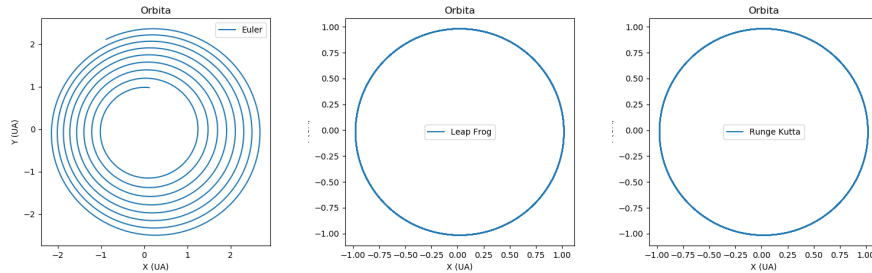
1.1 Posiciones



$dt = 1e-3$



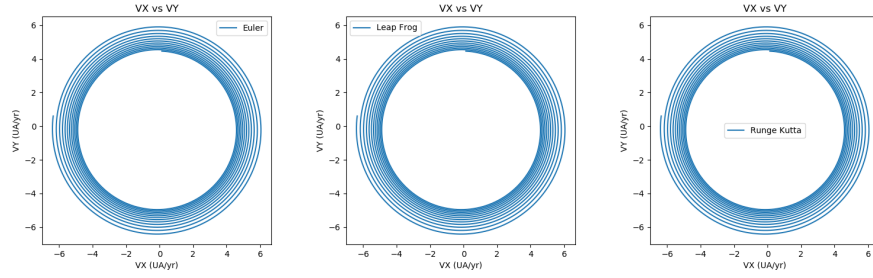
$dt = 2e-3$



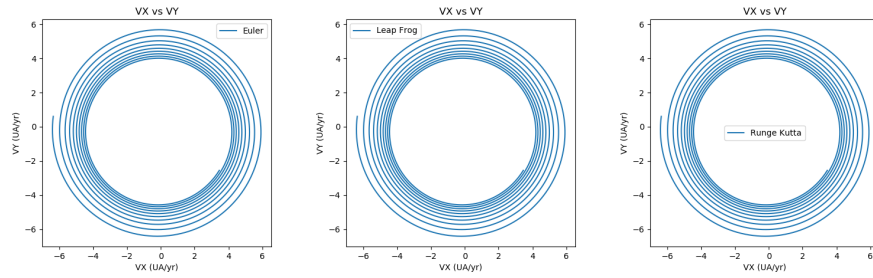
$dt = 3e-3$

Figura 2.1

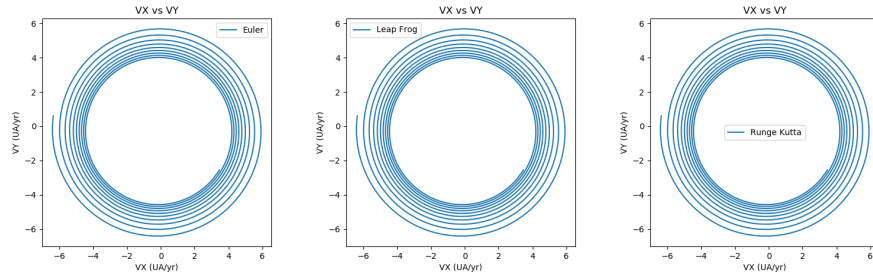
1.2 Velocidades



$dt = 1e-3$



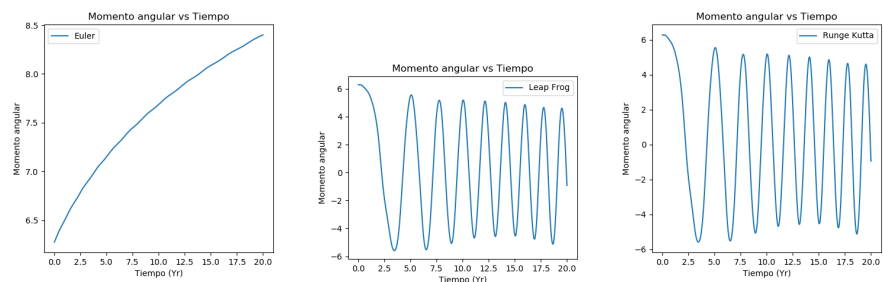
$dt = 2e-3$



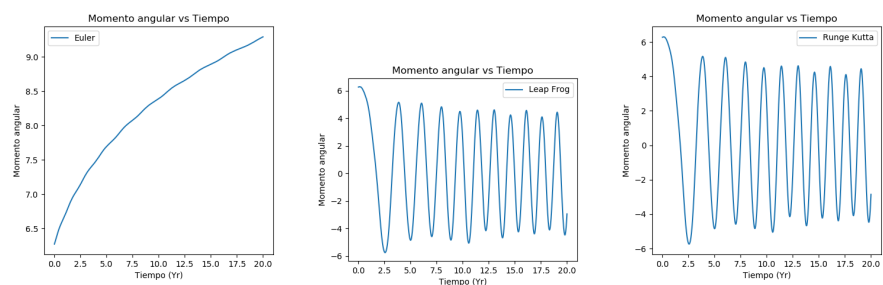
$dt = 3e-3$

Figura 2.2

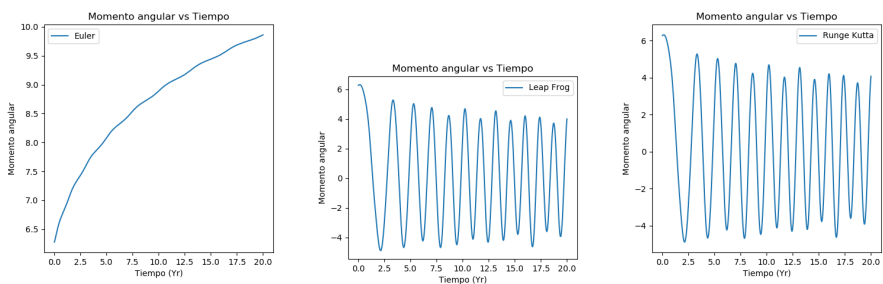
1.3 Momento Angular



$dt = 1e-3$



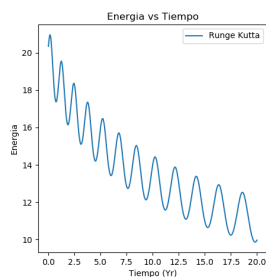
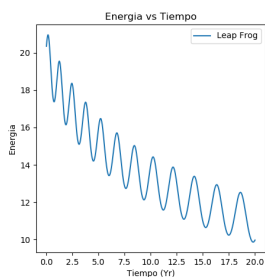
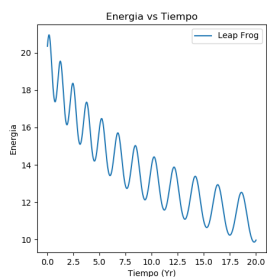
$dt = 2e-3$



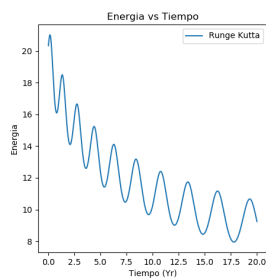
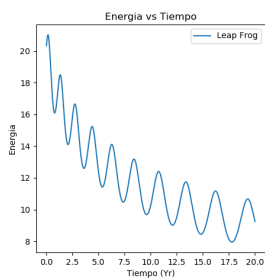
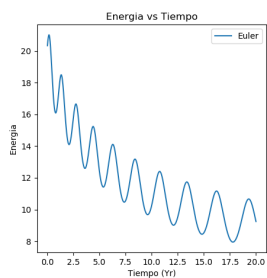
$dt = 3e-3$

Figura 2.3

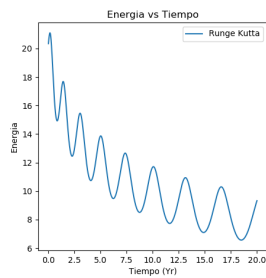
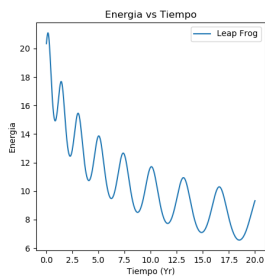
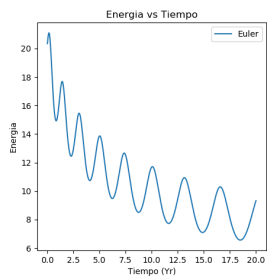
1.4 Energia total



$dt = 1e-3$



$dt = 2e-3$



$dt = 3e-3$

Figura 2.1