

Abstract

The restricted planar four body problem describes the motion of a massless body under the Newtonian gravitational force of other three bodies (the primaries), and the motion of the primaries gives us general solutions of the three body problem. A trajectory is called oscillatory if it goes arbitrarily faraway but returns infinitely many times to the same bounded region. We gave a robust construction of such kind trajectories provided the primaries evolve in suitable periodic orbits.