

## Rein's trajectories for the restricted three-body problem. Application to the Earth-Moon system

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### ABSTRACT.

This paper presents trajectories of a spacecraft moving in the gravitational field given by Rein's model for the restricted three-body problem. For various initial conditions, closed orbits are determined using Maple's numerical capabilities for ODE. Applications to the Earth-Moon system are considered, with trajectories computed around the stable  $\bar{L}_4$  Lagrangian point.

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