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Title: “*Coorbital quasi-periodic motion in the three-body problem*”

Abstract. We consider the dynamics of coorbital motion of two small moons about a large planet which have nearly circular orbits with almost equal radii. Within the framework of the planar three-body problem we establish the existence of quasi-periodic motions and KAM 3-tori. The study is based on a combination of normal form and symplectic reduction theories and the application of a KAM theorem for high-order degenerate systems. We approach the problem as a perturbation of decoupled Kepler. This approximation is valid in the region of phase space where coorbital solutions occur.

A joint work with J.F. Palacián and P. Yanguas.

References

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