

Quasiperiodic Motion in a Planar Sun–Jupiter–Saturn System

Àlex Haro

Universitat de Barcelona (UB) and Centre de Recerca Matemàtica (CRM),
Barcelona, Spain
ALEX.HARO@UB.EDU

Abstract

In this talk, we present evidence for the stability of a simplified model of the Solar System: a planar (Newtonian) Sun–Jupiter–Saturn system with realistic parameters, namely the planetary masses, semi-major axes, eccentricities, and precession rates close to the observed ones. The evidence is based on numerical computations indicating that a KAM theorem applies to the Hamiltonian equations of the model, leading to quasiperiodic motion on an invariant torus.

This is joint work with Jordi-Lluís Figueras (Uppsala University).

References

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