Symplectic integration of Hamiltonian systems with cosymmetry

Bulent Karasozen bulent@metu.edu.tr Middle East Technical University, Department of Mathematics, Ankara, Turkey

Differential equations with cosymmetry possess continuous family of equilibria with varying spectrum. A model cosymmetric Hamiltonian system with continuous family of stationary states is considered. The dynamics produced by different symplectic methods is studied using backward error analysis