

Título: "The inhomogeneous Fermi-Pasta-Ulam chain"

Resumen: The Fermi-Pasta-Ulam chain is a dynamical system of a finite number of particles with nearest neighbor interaction. The case in which the particles have equal mass has been studied by many authors.

We consider the case of four particles with possibly varying masses, with as prominent example the family of mass distributions for which the linearized system has the resonance 1:2:3. The addition of a small non-linear term to the system has interesting effects on the dynamical behavior of the solutions, in particular where it affects the integrability of the system.