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*Periodic solutions of perturbed Hamiltonian systems at resonance*

Abstract:

In a joint work with Christian Fabry, we look for periodic solutions of planar systems obtained by adding an asymptotically positively homogeneous nonlinear term to an isochronous hamiltonian system. Precise computations of the topological degree are obtained. We also present conditions for boundedness or unboundedness of the solutions. Our results generalize previous work on scalar second order equations with asymmetric nonlinearities.