

Z_2 -symmetric planar polynomial Hamiltonian systems of degree 3 with nilpotent centers

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Abstract: In this work we will present the normal forms and the global phase portraits in the Poincaré disk of all \mathbb{Z}_2 -symmetric planar polynomial Hamiltonian systems of degree 3 having a nilpotent center at the origin. Joint work with Jaume Llibre and Claudia Valls.