

Visualization as a Qualitative Tool for the Computation of Invariant Tori

Numerical computations for dynamical systems frequently have a natural geometric interpretation. Static plots can exploit simple geometry, but we consider three-dimensional interactive computer graphics to exploit the complicated geometry of invariant tori to more fully explore the computational results. In particular, by animating the results of computation through parameter changes and examining trajectories on individual tori, physical insight can be obtained and the effectiveness of computational methods examined. We present results for some familiar examples.

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