CDS 140a
Introduction to Dynamics

First Term, Fall 2005
Tuesday, Thursday, 10:30-12
Room 125 Steele

return time = 6; bigger -1000; backward-unstable
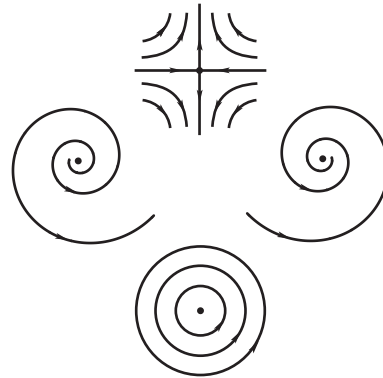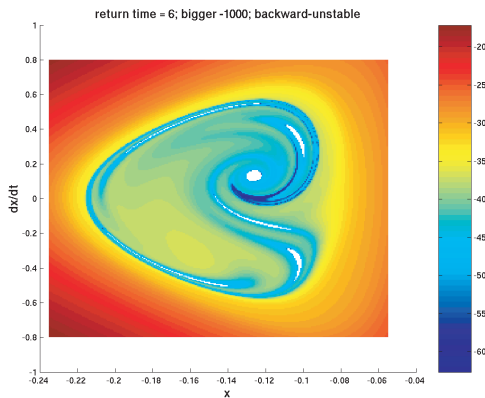
Prerequisites
Mathematical maturity on the level of ACM 95/100

Course Description
Basic concepts in dynamical systems, such as equilibrium points, stability, periodic orbits and invariant manifolds. Many examples are drawn from mechanics. Liapunov functions and attractors. Simple bifurcations, such as steady state and Hopf bifurcation. (9 units)

Course Text
L. Perko
Differential Equations and Dynamical Systems
TAM 7, Springer-Verlag
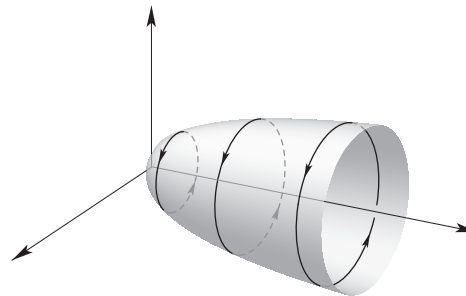
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