



Angela Grant
Northwestern University
Ergodic Optimization on Chaotic Systems
aegrant@math.northwestern.edu

Consider a dynamical system with a chaotic attractor. Given a real valued function F defined on the state space of the dynamical system, we aim to find those orbits or invariant measures whose ergodic F -average is as large as possible. Past work indicates that optimal trajectories tend to be periodic with low period. In this talk I will present an overview of the general theory of ergodic optimization, discuss methods for finding these optimal orbits and give some examples for some simple discrete chaotic systems.