abstract

GEOMETRY/DYNAMICAL SYSTEMS
Topic:

Speaker:

Affiliation:

Date:

Time/Room:

Predicting the future for a Hamiltonian dynamical system is an old and notoriously difficult problem. I will present some evidence however that in the simplest situation where one iterates an area preserving map on the 2-disk, solutions to an elliptic PDE, "holomorphic curves", potentially pick out certain structures in the long term behaviour of orbits. In the same framework I will also outline a proof of an interesting theorem of Franks and Handel from 2003, along with a slightly improved, and sharp, lower bound on the growth rate of periodic orbits. All proofs will be via pictures.