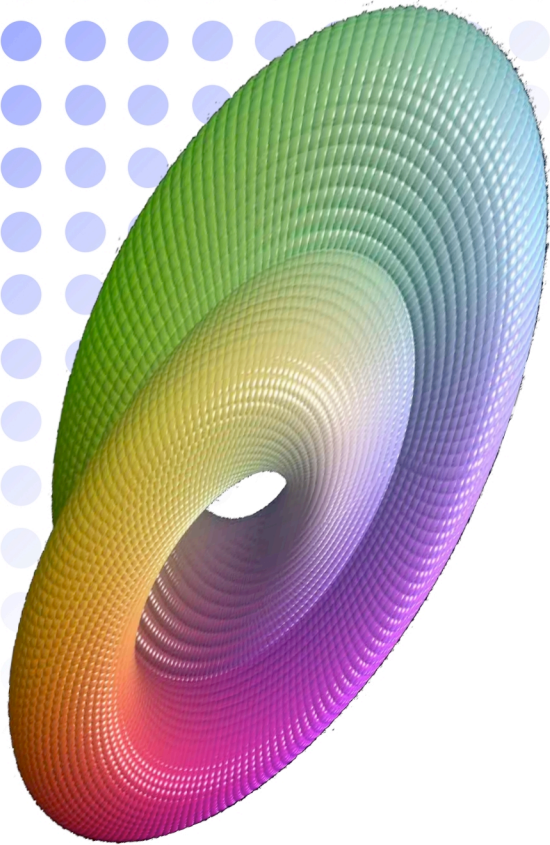


# Michigan Math Club

Thursday at 4pm in **East Hall 2851**  
(Nesbitt Room) Free Pizza and Pop



## Finding Periodic Orbits

Ralf Spatzier

Abstract for 20 Oct. 2011

A dynamical system is one that evolves with time. For such systems, the states that return to their starting point later on play a special role. They are called periodic orbits. When do they exist? I will discuss how to model this in mathematical language, and explore some examples.

I will also introduce topological entropy, an invariant of evolving systems. It is closely connected with information-theoretic entropy, and also with the number of periodic orbits

