Analysis/dynamical systems Seminar

Thursday, April 30, 2015
2:15 − 3:15 pm in Hume 321

Thermodynamic formalism and uniform mixing properties

Vaughn Climenhaga

University of Houston

A dynamical system can be defined by deterministic rules and still have behavior that appears stochastic. Thermodynamic formalism studies this phenomenon using entropy and other tools adapted from statistical mechanics; roughly speaking, the mechanism is that stochastic behavior is a consequence of the mixing properties of the system. The theory is well understood when the entire system mixes uniformly quickly. I will discuss this case and the more recently studied case where some part of the system mixes slowly.