

# Colloquium

Monday, October 27, 2014

4:00-4:50 pm in Hume 331

## Ergodic and Statistical Properties for Systems with Hyperbolicity

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In this talk I will discuss various dynamical systems with hyperbolicity. We will give some dichotomies for partially hyperbolic systems, that it is either completely dissipative, or it must be ergodic. Then we will discuss various aspects of a system being chaotic, and show the richness of entropies of invariant subsets of Anosov systems. Moreover, a more specific class of dynamical systems, chaotic billiards, will be introduced, and our recent result on the hyperbolicity of the billiard systems on asymmetric lemons. This talk will be at a level accessible to graduate students and faculty in all areas of mathematics.