

Department of Mathematics and Statistics Colloquium

Structure in “Chaos”

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Abstract: Starting with a basic definition of a dynamical system, we will explore the notion of entropy and explain why systems with positive entropy are commonly referred to as “chaotic”. Through a simple example, we will illustrate the rich structure that, contrary to naive intuition, is characteristic of “chaotic systems” in the smooth setting: in particular stable manifolds and “lots” of periodic orbits. Time permitting, we will discuss, in vague terms, the generality of this structure and some obstructions. This talk is intended for a broad audience.

Monday, October 19 at 3:45 in Roop 103
refreshments at 3:30