

DEPARTMENT OF MATHEMATICS AND STATISTICS
MISSISSIPPI STATE UNIVERSITY

COLLOQUIUM

Chaos from the Statistical Point of View

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Thursday, October 30 at 3:30 pm

Allen 14

Abstract. In this introductory talk, we explore the concept of chaos from a statistical point of view, which is a basic idea for the ergodic theory of chaotic dynamical systems.

A class of positive operators called Frobenius-Perron operators will be introduced in an elementary way for the investigation of invariant measures that give statistical properties of chaotic maps.

We also present structure-preserving numerical methods for approximating Frobenius-Perron operators, particularly the famous Ulam method.

There will be a reception for Dr. Ding in Allen 467 at 3:00 pm.

Contact Chuanxi Qian, qian@math.msstate.edu or (662) 325-7148, for additional information.