

Chaos and Geometry

James A. Yorke

University of Maryland

There will be a series of three lectures as follows.

1. Chaos and Geometry - an introduction

2. Chaos and Geometry of fluids

This lecture would include discussions of pipe flow and chaos in atmospheric dynamics

3. Analysis vs topology, a case study of mutual empowerment: cascades of period doubling bifurcations.

The interplay between analysis and topology can be seen in the investigation families of solutions of systems of equations.