

WICHITA STATE UNIVERSITY

Department of Mathematics and Statistics

*The Lecture Series in the
Mathematical Sciences Presents Our Guest:*

Dr. Christian Wolf

Wichita State University

"Hausdorff dimension in holomorphic dynamics"

Abstract:

In this talk we discuss dimension-theoretical properties of one-dimensional holomorphic dynamical systems. In particular, we prove the existence of generalized physical measures which shows that the set of points with typical dynamics has maximal possible Hausdorff dimension. As a counterpart to this result, we obtain that the set of divergence points (i.e. the set of points which are not typical with respect to any invariant measure) also has maximal Hausdorff dimension. Our approach relies heavily on Manning's formula for the dimension of generic points, the thermodynamic formalism and on the hyperbolic approximation theory by Przytycki and Urbanski. This is a joint work with the graduate students Jacie Kaufmann and Bill Ingle.

Friday, February 8, 2008
3:00 PM in 372 Jabara Hall

*Please come join us for refreshments before the lecture
at 2:30 p.m. in room 353 Jabara Hall.*