



Speaker: Eric Wawerczyk
University of Notre Dame

Monday, January 18, 2016

4:00 PM

129 Hayes-Healy Hall

Title: Deformation of Sequences

Abstract:

The talk begins with an introduction to a global perspective of modern number theory through the study of peculiar sequences of numbers which arise from seemingly unrelated circumstances: Fourier coefficients of holomorphic functions, counting solutions to algebraic equations over finite fields, representations of Lie Groups, and their corresponding L-functions. We will discuss the successes of this program with its role in the proof of Fermat's Last Theorem. A useful tool for proving things about sequences of numbers is to consider them in families. We introduce Hida Families: deformation rings for p -ordinary modular forms and their generalizations.