

*Mathematical Research
at Notre Dame*



UNIVERSITY OF
NOTRE DAME
Department of Mathematics

Speaker: Nero Budur
University of Notre Dame

Friday, October 28, 2011

4:00 pm

231 Hayes-Healy Hall

Title: Local zeta functions and singularities

Abstract:

The singular locus of a polynomial F in n variables with complex coefficients consists of the points in the zero locus where there is no manifold structure. Conjecturally, singularities provide a bridge between the following two, seemingly unrelated, questions: how to count solutions modulo prime powers of F when it has integral coefficients, and how to define complex powers of F when it has real coefficients. This talk will be an introduction to the Monodromy Conjecture which precisely relates the two questions and is one of the most intriguing conjectures in Algebraic Geometry.

There will be pizza provided by the department following the lectures.