

COLLOQUIUM

University of Notre Dame

Department of Mathematics

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Will give a lecture entitled
Algebraic invariants of singularities

On

Monday, January 28, 2013

at 4:15 PM in Room 127 Hayes-Healy Hall

Tea in Room 257 (lounge in Hurley Hall) at 3:30 p.m.

Abstract:

An (algebraic) singularity is a point on an algebraic variety that lacks a well-defined tangent space. One way to study a singularity is by means of a resolution, that is, a recipe to reconstruct the singularity from algebraic manifolds via contracting submanifolds. Many important invariants of a singularity can be computed using a resolution. On the other hand important algebraic invariants (for example algebraic K-theory, or algebraic differential forms) cannot be so calculated. In this talk I will discuss a general approach of measuring the "failure" of the computation developed as part of a long-term project joint with Cortinas, Walker and Weibel and in part Schlichting, and I will discuss how this leads to an understanding of such invariants and what the results mean in a very particular example.