The University of Mississippi
Department of Mathematics

Departmental Colloquium

Dr. Javid Validashti
University of Illinois at Urbana-Champaign

Algebraic Methods in Geometric Problems

Friday, August 30, 2013
1:00 P.M.
Hume 331

Abstract: In this talk, I will describe some algebraic methods to study problems in geometry, where there is a beautiful interplay between ideas from commutative algebra, algebraic geometry and combinatorics. The main goal is to understand how geometric ideas manifest in various algebraic structures and invariants. It turns out there are often elegant characterizations of geometric properties in terms of algebraic conditions, that can be captured numerically. For instance, certain equisingularity conditions are translated into algebraic conditions known as integral dependence of modules, that are governed by numerical invariants referred to as multiplicities.

Faculty, Staff and Students are welcome to attend