Department of Mathematics
University of Notre Dame

Michael Perlman - University of Notre Dame

GRADUATE STUDENT SEMINAR

Guest Speaker: Michael Perlman
University of Notre Dame

Date: Monday, October 31, 2016
Time: 4:00 PM
Location: 129 Hayes-Healy Hall

Lecture Title:

Young Diagrams and Invariant Ideals on Spaces of Matrices

Abstract

The space of m x n matrices admits a natural action of the group GL_m x GL_n via row and column operations on the entries. This action extends to the coordinate ring of the space of matrices, and the invariant ideals were classified by DeConcini, Eisenbud, and Procesi in the 1980's. Their techniques were combinatorial, employing classical results on the equations for Grassmannians. In this talk, I will describe the classification theorem, with an emphasis on these methods, which fit into a broader context known as standard monomial theory.