

ALGEBRAIC GEOMETRY AND COMMUTATIVE ALGEBRA SEMINAR

Speaker: Mike Perman
University of Notre Dame



Date: Wednesday, September 4, 2019

Time: 3:00 PM

Location: 258 Hurley Hall

Lecture Title:

Hodge ideals for determinantal hypersurfaces

Abstract

Hodge ideals are invariants of hypersurface singularities that arise from birational geometry and M. Saito's theory of mixed Hodge modules. We compute explicitly these ideals for hypersurfaces defined by the generic determinant. To do this we take advantage of the rich symmetry of their log resolutions, the spaces of complete collineations. This is part of joint work in progress with Mircea Mustata and Claudiu Raicu.