

Equations for nonsingular subvarieties.

Gregory G. Smith (Queen's University)

Abstract. In algebraic geometry, the difficulty of making effective calculations is subtly governed by intrinsic geometry. In this talk, we will review some bounds on the algebraic complexity (a.k.a. Castelnuovo-Mumford regularity) for subvarieties of projective space. We'll then motivate and present new results which accommodate more general ambient spaces. In particular, we will discuss a linear bound on the multigraded regularity of a nonsingular subvariety.