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Craig Huneke, Paolo Mantero, Jason McCullough and Alexandra Seceleanu*
(aseceleanu@unl.edu). *A tight bound for projective dimension: the case of codimension two quadratic ideals.*

Motivated by a question of Stillman, there has been a great surge of interest in bounding homological invariants of ideals in a polynomial ring using only intrinsic information on the ideal (namely the degree of its generators). In this talk, we discuss a sharp upper bound for the projective dimension of ideals of height two generated by quadrics in a polynomial ring with arbitrary large number of variables. We compare this with the exponential bound described more generally by Ananyan and Hochster for ideals generated by quadratic polynomials. (Received July 29, 2013)