

# Queen's Algebraic Geometry — Seminar —

## SYMBOLIC POWERS OF MONOMIAL IDEALS

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### Abstract

In joint work with Susan Cooper, Robert Embree, Tàì Hà and Greg Smith, we provide a description of the symbolic powers of a monomial ideal in terms of the regular powers of certain primary components of the ideal. Brian Harbourne and Craig Huneke have made a number of conjectures on the containment of the symbolic powers in the regular powers of ideals of projective points. We prove many of these conjectures for monomial ideals, rather than for ideals of points, using our description of monomial symbolic powers. Finally, we construct a polyhedral approximation to the symbolic powers of a monomial ideal. We use this construction to prove a conjecture of Chudnovsky in various cases.

Monday 16 September 2013  
16:30 – 17:30  
319 Jeffery Hall