Queen's Algebraic Geometry — Seminar —

Syzygies of Toric Varieties

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Abstract

The aim of this talk is to give an introduction to the property (N_p) for an ample line bundle L on a toric variety. Property (N_p) is a generalization of normal generation (i.e. the map induced by L is a projectively normal embedding) and normal presentation (i.e. the ideal of the image of the variety under the induced map is generated by quadratic equations). I will present a sufficient criterion for the power of an ample line bundle on a toric variety to satisfy (N_p). Moreover, I will illustrate the interaction between the combinatorics of lattice polytopes and normal generation of line bundles on toric varieties.

Monday, September 12, 2004
4:45pm – 5:45pm
319 Jeffery Hall