

Queen's Algebraic Geometry — Seminar —

TORIC VECTOR BUNDLES AND PARLIAMENTS OF POLYTOPES

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Abstract

In this talk, I will describe how to relate a collection of rational convex polytopes to a toric vector bundle on a smooth complete toric variety. We'll see that this parliament of polytopes encodes much information about the toric vector bundle, for example the lattice points in the polytopes will correspond to generators of the global sections, and the edge lengths can be related to jets. Further notions of positivity can also be related to these polytopes, and we'll see examples of ample toric vector bundles that are not globally generated, and ample, globally generated toric vector bundles that are not very ample. This is joint work with Sandra Di Rocco and Greg Smith.

Monday 3 November 2014
16:30–17:30
319 Jeffery Hall