Queen's Algebraic Geometry — Seminar —

LIFTING RANK 2 DIVISORS FROM GRAPHS TO CURVES

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Abstract

In tropical geometry, Baker's specialization lemma provides an upper bound on the rank of a divisor based on the combinatorics of the dual graph of a semistable degeneration. This bound can be strict, in part because there are many curves with the same dual graph. Thus, it is natural to ask whether for a fixed graph and divisor on that graph, there is always a curve realizing the combinatorial upper bound. I will talk about examples where deciding this realizability problem can depend on the field, and its decidability is "as hard as possible". In particular, it reduces to the question of realizability for matroids.

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