Queen's Algebraic Geometry
— Seminar —

Approximating Tropical Curves in Surfaces

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Abstract

One of the major successes of tropical geometry is Mikhalkin's correspondence theorem, which relates complex and tropical curves in toric surfaces. This has been applied to calculate Gromov-Witten and Welschinger invariants in some cases. In non-toric surfaces Mikhalkin's correspondence does not hold; there are tropical curves not arising from complex curves or algebraic curves over any field. We will explain some local obstructions to approximating tropical curves coming from tropical intersection and very classical theorems of algebraic geometry which illustrate some of the strange behaviour possible of tropical curves in surfaces. This is joint work with Erwan Brugallé.

Monday 26 November 2012
16:30 – 17:30
319 Jeffery Hall