Queen's Algebraic Geometry
— Seminar —

Counting Hyperplane Arrangements

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Abstract

Some of the most appealing problems in algebraic geometry involve counting the number of geometric objects satisfying geometric constraints. In this talk, I'll describe how one might go about counting the number of hyperplane arrangements (collections of finitely many codimension-1 linear spaces) that pass through a fixed number of points in general position in projective space. The methods range from elementary combinatorics to Schubert Calculus (computations in the cohomology of the Grassmann variety).

Nearly everyone that works in enumerative geometry makes lots of errors: I'll try to point out some of our most instructive errors as we develop the appropriate theory. Though the topic is relatively advanced, I'll try to make the presentation as accessible as possible.

Thursday 26 July 2012
11:00 – 12:00
319 Jeffery Hall