

Stanford Algebraic Geometry — Seminar —

LINEAR SYSTEMS OF PLANE CURVES WITH BASE POINTS OF BOUNDED MULTIPLICITY

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Abstract

We address the problem of computing the dimension of the space of plane curves of fixed degree and general multiple base points. A conjecture of Harbourne and Hirschowitz gives geometric meaning to when this dimension is larger than the expected dimension obtained from Riemann-Roch; specifically, the dimension is larger than expected if and only if the system has a multiple (-1) -curve in its base locus. We discuss different approaches for attacking this conjecture, and show that it holds for all systems with base points of multiplicity 7 or less.

Friday, March 4

3:30 p.m., after the kiddie colloquium (**Note unusual time!**)

Room 383-N

<http://math.stanford.edu/~vakil/s0405/>