

Harvard-M.I.T. Algebraic Geometry Seminar

K3 SECTIONS AND THE EFFECTIVE CONE OF THE MODULI SPACE OF CURVES

GAVRIL FARKAS

UT Austin and Princeton

A fundamental problem in the geometry of the moduli space of curves is to describe its cone of effective divisors which loosely speaking parametrizes all rational maps from M_g to other varieties. The shape of this cone is predicted by the Harris-Morrison Slope Conjecture which singles out the classical Brill-Noether divisors as those having minimal slope.

We describe ways to construct new divisors on M_g (fundamentally different from the Brill-Noether ones), which lie outside the range predicted by the Slope Conjecture. A connection to the geometry of the moduli space of polarized $K3$ surfaces will also be explained.

Tuesday, March 16th

3:00 p.m.

MIT Room 4-149

<http://www-math.mit.edu/~jstarr/04sem/>.