

Stanford Algebraic Geometry — Seminar —

GEOMETRY OF CHOW QUOTIENTS OF GRASSMANNIANS

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Abstract

We consider Kapranov's and Lafforgue's compactification of the moduli space of ordered n -tuples of hyperplanes in the r -dimensional projective space in linearly general position. For $r = 1$ this is canonically identified with the Grothendieck-Knudsen moduli space of stable rational curves. It turns out that for $r = 2$ (and higher) this space also has a functorial meaning. The corresponding stable surfaces admit a canonical resolution of singularities defined using membranes in the affine building (also known as tropical linear spaces). However, geometry of this moduli space is (universally) bad. This is joint work with Sean Keel (Duke Math. J. 134, no. 2 (2006), 259-311).

Friday, November 3

3:15 p.m.

Room 383-N

<http://math.stanford.edu/ag/s0607/>