

Harvard-M.I.T. Algebraic Geometry Seminar

RATIONAL SURFACES AND POSITIVITY OF HIGHER CHERN CLASSES

JASON STARR
M.I.T.

Using Mori's bend-and-break lemma, Kollár, Miyaoka and Mori proved every compact, complex manifold with positive first Chern class is uniruled, i.e., a general point is contained in a rational curve in the manifold. I will prove a theorem relating positivity of the second graded Chern character to existence of rational surfaces in the manifold containing a general point. The technique highlights the open problem of irreducibility of spaces of rational curves on Fano manifolds, which I will discuss. This is joint work with de Jong and uses work with Coskun and Harris.

Tuesday, April 18th
3:00 p.m.
Harvard Science Center 507

<http://www-math.mit.edu/ags/>