

Stanford Algebraic Geometry — Seminar —

TORIC VECTOR BUNDLES AND THE RESOLUTION PROPERTY

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Abstract

Is every coherent sheaf on an algebraic variety the quotient of a locally free sheaf of finite rank? I will discuss an investigation of this question via equivariant vector bundles on toric varieties, and will give examples of complete (singular, nonprojective) toric threefolds with no nontrivial equivariant vector bundles of rank less than or equal to 3. It is not known whether these varieties have any nontrivial vector bundles at all.

Friday, May 12

3:15 p.m.

Room 383-N

<http://math.stanford.edu/~vakil/s0506/>