Harvard-MIT Algebraic Geometry Seminar

Existence of rational points on smooth projective varieties

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Let k be a number field. We prove results including:

(1) If there is an algorithm to decide whether a smooth projective k-variety has a k-point, then there is an algorithm to decide whether an arbitrary k-variety has a k-point.
(2) If there is an algorithm for deciding whether a smooth projective 3-fold has a k-point, then there is an algorithm to compute $X(k)$ for any curve X over k.

Tuesday September 25th
3:00 p.m.
Harvard Science Center (507)