

**Meeting:** 1004, Bowling Green, Kentucky, SS 15A, Special Session on Recent Advances in Noncommutative Algebra

1004-16-241      **Daniel Rogalski\*** (rogalski@mit.edu), Room 2-279, Dept. of Mathematics, 77 Massachusetts Ave., Cambridge, MA 02139. *Classifying birationally commutative surfaces.*

Given a graded algebra over an algebraically closed field, we show that under mild hypotheses there exists a canonical factor ring which is defined by the geometry of the point scheme. As a consequence, we obtain a classification of a special class of graded rings which we call birationally commutative. In particular this solves a special case of the problem of classifying noncommutative surfaces. This is joint work with James Zhang. (Received January 25, 2005)