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Daniel Rogalski* (rogalski@mit.edu), Room 2-279, Dept. of Math., 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 February 22, 2005)