## $\mathbf{T}_{\text{EMPLE}} \; \mathbf{U}_{\text{NIVERSITY}} \; \mathbf{M}_{\text{ATHEMATICS}} \; \mathbf{C}_{\text{OLLOQUIUM}}$

## Susan Sierra

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will speak on

## Low-dimensional noncommutative geometry

ABSTRACT: The correspondence between commutative graded rings and projective algebraic varieties is well-known. Perhaps surprisingly, geometric techniques have also been highly successful in understanding noncommutative graded rings, particularly those of low dimension (less than or equal to 3). We survey current research in this area, including our recent classification of "birationally commutative projective surfaces," and discuss open problems. This talk is intended for a general audience.

> Monday, 26 April 2010 Lecture at 4:00 pm Coffee, tea, and refreshments from 3-5 pm Room 617, Wachman Building Department of Mathematics