Abstract:
In the classification of (commutative) projective surfaces, one first classifies minimal models for a given birational class, and then shows that any surface can be blown down at a finite number of curves to obtain a minimal model.

Artin has proposed a similar programme for noncommutative surfaces (that is, domains of $GK$-dimension 3). In the generic “rational” case of rings birational to a Sklyanin algebra, the likely candidates for minimal models are the Sklyanin algebra itself and Van den Bergh’s quadric surfaces. We show, using our previously developed noncommutative version of blowing down, that these algebras are minimal in a very strong sense: given a Sklyanin algebra or quadric $R$, if $S$ is a connected graded, noetherian overring of $R$ with the same graded ring of fractions, then $S = R$.

This is a joint work with Rogalski and Stafford.

Special Note:
There is a pre-talk for grad students and postdocs from 2:15 - 2:45.