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Noncommutative quadrics and $\mathbb{Z} \times \mathbb{Z}$ -graded algebras. Preliminary report.

We study a class of $\mathbb{Z} \times \mathbb{Z}$ -graded algebras which give rise to noncommutative analogues of quadric surfaces. They occur as double Ore extensions of AS regular algebras of dimension 2, and Zhang-Zhang classified them into 26 families. Following Artin-Tate-Van den Bergh, we re-interpret the Zhang-Zhang classification using geometric data. This is joint work with Daniel Chan and S. Paul Smith. (Received February 09, 2014)