1027-16-167   **Ellen Kirkman** and **James Kuzmanovich*** (`kuz@wfu.edu`), Department of Mathematics, P. O. Box 7388, Winston-Salem, NC 27109, and **James Zhang**. *Reflections of Regular Algebras II: Quantum Polynomial Algebras.* Preliminary report.

We consider a class of Artin-Schelter regular algebras A called *quantum polynomial Algebras,* which are Artin Schelter regular algebras whose Hilbert series have the form $H_A(t) = \frac{1}{(1-t)^n}$. For these algebras we study a type of graded automorphism called quasi-reflections and determine their structures. We show that if G is a finite Abelian group of graded automorphisms of A, then the fixed ring A^G is again regular if and only if G is generated by quasi-reflections. This is an Abelian group analog of the Shephard-Todd-Chevalley Theorem. (Received February 26, 2007)