

1025-16-201 **Farkhod Eshmatov*** (eshmatov@math.cornell.edu), 190 Pleasant Grove Rd., Apt.# N6,
Ithaca, NY 14850. *DG models and Nakajima quiver varieties.*

To each finite subgroup of $SL_2(\mathbb{C})$ one can associate a family of noncommutative algebras deforming the coordinate ring of the classical Kleinian singularity \mathbb{C}^2/Γ . These algebras were defined by W. Crawley-Boevey and M. Holland in 1998, who also suggested a conjectural description of projective modules over these algebras in terms of Nakajima quiver varieties. In 2002, Baranovski, Ginzburg and Kuznetsov proved the Crawley-Boevey-Holland conjecture using the methods of noncommutative projective geometry. In this talk we will present a refined (G -equivariant) version of this conjecture and give a new proof of the Baranovski-Ginzburg-Kuznetsov result using some simple ideas from homotopical algebra. (Received January 22, 2007)