

1075-05-164

**Briana Foster-Greenwood\***, Department of Mathematics, University of North Texas, 1155 Union Circle #311430, Denton, TX 76203-5017. *Graded Hecke algebras and reflection length versus codimension.*

The geometry and combinatorics of finite reflection groups exhibits a rich and fruitful history. Modern investigations focus on deformation theory and Hochschild cohomology. Hochschild cohomology predicts deformations such as graded Hecke algebras and symplectic reflection algebras. We present new results on complex reflection groups comparing absolute reflection length and codimension of fixed point spaces. Analysis of the related posets (using algorithms developed in GAP, among other tools) allows an explicit description of cohomology. (Received August 29, 2011)