Briana Foster-Greenwood*, Department of Mathematics, University of North Texas, 1155 Union Circle #311430, Denton, TX 76203-5017. Reflection groups: Comparing length and codimension.

The geometry and combinatorics of finite reflection groups exhibits a rich and fruitful history. Modern investigations focus on deformation theory and Hochschild cohomology. 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 12, 2011)