

1054-16-183

B Daugherty Zajj* (daughert@math.wisc.edu), Department of Mathematics, 480 Lincoln Drive, Madison, WI 53706. *Two Boundary Graded Centralizer Algebras*. Preliminary report.

Two boundary diagram algebras (e.g. graded braid groups, Hecke algebras, Brauer algebras) arise as tensor power centralizer algebras, algebras of commuting operators for a Lie algebra action on a tensor space. This work explores centralizers of the actions of finite dimensional complex reductive Lie algebras on tensor spaces of the form $M \otimes N \otimes V^{\otimes k}$. As an example, we study in detail the combinatorics of special cases corresponding to \mathfrak{gl}_n and \mathfrak{sl}_n and explain how this could be applied to the study of the combinatorial representation theory of graded Hecke algebras of type C . (Received September 13, 2009)