

1086-16-2116

Zajj B Daugherty* (zajj.b.daugherty@dartmouth.edu), 6188 Kemeny Hall, Dartmouth College, Hanover, NH 03755. *Centralizer properties of the affine Hecke algebra of type C*. Preliminary report.

Several diagram algebras (like group algebras of symmetric groups or braid groups) arise as endomorphisms of tensor spaces that commute with classical Lie groups, Lie algebras, quantum groups, etc.. The commutator relationships provide amazing tools for studying the algebras' representation theory, and reveal beautiful combinatorial structure. This work provides a bridge between results in quantum physics (and the two-boundary Temperley-Lieb algebra), the representation theory of the affine Hecke algebra of type C, and the combinatorics developed in thesis work on the degenerate two-boundary Hecke algebra, establishing a transfer of useful information between these different points of view. (Received September 24, 2012)