1051-16-177   **Zajj B Daugherty*** (`daughert@math.wisc.edu`), Department of Mathematics, 480 Lincoln Drive, Madison, WI 53706. *Building two boundary diagram algebras.* Preliminary report.

We study families of algebras that arise as algebras of commuting operators for the action of a finite dimensional complex reductive Lie algebra on a tensor space of the form $M \otimes N \otimes V^{\otimes k}$. This work uses similar techniques employed in the study of graded Hecke and Brauer algebras as centralizer algebras to construct two boundary analogs. In this talk, we outline this construction and explore some of the elegant combinatorial properties of the representation theory of specific examples. (Received August 24, 2009)