

Meeting: 1001, Evanston, Illinois, SS 24A, Special Session on Hopf Algebras at the Crossroads of Algebra, Category Theory, and Topology

1001-16-287 **Thomas Kerler*** (kerler.2@osu.edu), Department of Mathematics, The Ohio State University, Columbus, OH 43210. *Canonical central elements in quasi-triangular Hopf algebras*. Preliminary report.

We will discuss two canonical central elements in a quasi-triangular Hopf algebra A . The first is a central element Q in A which is nilpotent of order two. It can be thought of as the "link decoration" that reduces a non-semisimple Hennings-type TQFT in 3-dim to the respective Reshetikhin-Turaev theory. The second is a topologically constructed canonical element L , whose value in an irreducible representation V of A is non-zero if and only if V is self-conjugate. (Received August 29, 2004)