

*Department of Mathematics,
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University of California Lie Theory Workshop

Prof. Susan Montgomery

University of Southern California

Orthogonal Representations of Hopf Algebras

Abstract:

Let H be a Hopf algebra over an algebraically closed field of characteristic not 2. Assume that the antipode of H has period 2, and let V be a finite-dimensional representation of H . Then if V is self-dual, it must be either “orthogonal” or “symplectic”, in the sense that it admits a non-degenerate H -invariant bilinear form which is either symmetric or skew-symmetric.

We consider various Hopf algebras constructed from finite groups, and investigate when all of their (finite-dimensional) representations are orthogonal in the above sense.

Host: Efim Zelmanov

Saturday, February 16, 2008

9:00 AM

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