

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

1001-16-222 **Mihai D Staic*** (mdstaic@buffalo.edu), The State University of New York at Buffalo, 244
Mathematics Building, Buffalo, NY 14260. *A note on anti-Yetter-Drinfeld modules.*

Yetter-Drinfeld modules appear natural in the context of the "center construction" for the category $H\text{-mod}$. In order to define Hopf cyclic cohomology with coefficients, we need to talk about anti-Yetter-Drinfeld modules.

We show here that if a Hopf algebra H admits a modular pair in involution the above two categories are isomorphic. Also we show that, in the general case, (anti-) Yetter-Drinfeld modules fit in the framework of crossed group categories. (Received August 26, 2004)