

Title: New Examples of Yetter-Drinfel'd Hopf Algebras

Abstract: We describe new examples of semisimple cocommutative Yetter-Drinfel'd Hopf algebras over finite abelian groups in which cores have special properties. In the case where the finite abelian group has prime order, cores are always completely trivial in the sense that both the action and the coaction of the finite abelian group on the core is trivial. As our example shows, this is not a general phenomenon: Although we conjecture that the core is always trivial, it is not always completely trivial in the sense just stated.

In the talk, after a general introduction to Yetter-Drinfel'd Hopf algebras, we will explain the terms used above, i.e., the notion of a core and the concepts of triviality and complete triviality. We then review what is known about the prime order case and finally describe the examples. The talk is based on joint work with Yevgenia Kashina.