Algebra Seminar

Speaker:

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Wednesday, November 1, 2017
1:00 p.m., HH-3017

Extensions of Yetter-Drinfel'd Hopf Algebras

Abstract:

Due to the work of N. Andruskiewitsch, J. Devoto, M. Feth, I. Hofstetter, S. Majid, W. M. Singer, and others, the extension theory for Hopf algebras is by now well-established. This theory carries over to Hopf algebras in monoidal categories, and therefore in particular to Yetter-Drinfel'd Hopf algebras, without substantial modification.

However, this direct generalization does not cover important examples, such as those that arise in the classification of commutative semisimple Yetter-Drinfel'd Hopf algebras over groups of prime order. The reason is that in these examples the so-called cleaving map is not a morphism in the category. In the talk, we describe a framework that is able to incorporate also these examples. The talk is based on joint work with Y. Kashina.