Hopf algebras and Lie theory

Abstract:

I will explain some recent results on the classification of Hopf algebras and the rather surprising relationship between (a certain class of) Hopf algebras and generalized root systems and Weyl groupoids. The basic notion is the Nichols (or quantum symmetric) algebra of a braided vector space. Important special cases are the plus parts of deformed universal enveloping algebras.

The talk is based on joint work with N. Andruskiewitsch and with I. Heckenberger.

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