

Departmental Colloquium

Time: Wednesday, July 25, 1 p.m.

Place: HH-3017

Speaker: Nicolas Andruskiewitsch

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The classification problem for finite-dimensional Hopf algebras

Abstract:

Hopf algebras were introduced by Cartier in the middle of the 1950's as an axiomatization of the work of Dieudonne on algebras of distributions on algebraic groups in positive characteristic.

Independently, an analogous notion appeared in the works of Hopf and A. Borel. A milestone in the development of the theory was the discovery by Drinfeld and Jimbo of quantum groups, which related Hopf algebras to other areas of mathematics.

In the first part of the talk, I will introduce Hopf algebras from scratch, give some basic examples and briefly sketch some aspects of their history. In the second part, I will discuss the classification program of finite-dimensional complex Hopf algebras. An overview of the current state of the art will be given.