Algebra Seminar

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Wednesday, October 21, 2015 1:00p.m., HH-3017

Frobenius-Schur Indicators for Hopf Algebras

Abstract:

The classical Frobenius-Schur indicators, introduced by G. Frobenius and I. Schur in 1906, can be generalized in two different directions. On the one hand, one can just replace the square that appears in their formula by a higher exponent; this leads to the higher Frobenius-Schur indicators for groups. On the other hand, they can be generalized to Hopf algebras in a way that preserves their decisive properties, as was shown by S. Montgomery and V. Linchenko in 2000. Both these generalizations can then be considered as special cases of the higher Frobenius-Schur indicators for Hopf algebras. In the talk, we discuss the basic properties of these indicators and the form of those properties in the various special cases. Although this talk continues the talk by Dr. Kotchetov two weeks ago, it will be fully self-contained.