Discrete Mathematics Seminar

Time: Friday, 26 September 2014, 2:00-3:00 PM
Room: 237 Derrick Hall
Title: Hopf Algebras and their Frobenius-Schur Indicators
Speaker: Dr. Yorck Sommerhäuser, Department of Mathematics, SUNY – Buffalo

Abstract:

A Hopf algebra is an algebra which admits the formation of the tensor product of two modules. Moreover, every module has a dual, and therefore it is possible for a module to be self-dual. Whether or not this is the case is detected by a certain invariant, the so-called Frobenius-Schur indicator. We discuss these indicators and their generalizations and applications, especially their application in the proof of a version of Cauchy's theorem for Hopf algebras.

The talk is based on joint work with Y. Kashina and Y. Zhu. It is intended for a general audience; in particular, no knowledge of Hopf algebras will be assumed.