



Speaker: Dan Ciubotaru
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Wednesday, October 13, 2010
4:00 PM
117 Hayes-Healy Hall

Title: Schur-Weyl duality

Abstract:

The classical Schur-Weyl duality gives a correspondence between finite dimensional complex representations of the general linear group $GL(n, \mathbb{C})$ and symmetric groups. In this talk, I will review this basic construction and then present generalizations of it. In particular, I will explain how an analogue of Schur-Weyl duality can be used to construct functors (with good properties) from certain important categories of infinite dimensional complex representations of $GL(n, \mathbb{R})$ to categories of finite-dimensional modules over algebras closely related to the symmetric group. The talk is based on joint work with Peter Trapa.