UNIVERSITY AT ALBANY
State University of New York

College of Arts and Sciences
Department of Mathematics and Statistics

Algebra/Topology Seminar

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On the K-Theory of Linear Groups

Thursday, October 1, 2015
1:15 p.m. in ES-143

Abstract. We will show that for every ring R the assembly map in algebraic K-theory

$$H_n^G(\underline{\mathrm{E}}G; \mathbb{K}_R) \to K_n(R[G])$$

is split injective for every subgroup G of a linear group which admits a finite dimensional model for the classifying space $\underline{\mathrm{E}}G$ for proper actions. For this we will use the concept of finite decomposition complexity, first introduced by Guentner, Tessera, and Yu. It is a coarse invariant of metric spaces and generalizes the notion of finite asymptotic dimension.