

Title. Higher rank groups have fixed price one.

Abstract. In this talk I will give an executive summary of the result in the title. In particular, we show that every essentially free probability measure preserving action of a higher rank semisimple Lie group has cost one. This implies every lattice in such a group has cost one, as well as resolving a conjecture of Abert, Gelander, and Nikolov on the vanishing of rank gradient for sequences of lattices in higher rank simple Lie groups. It thus also proves state-of-the-art vanishing results for mod- p homology growth. No prior familiarity with cost for locally compact groups or knowledge of Lie theory will be assumed. Joint work with Mikolaj Fraczyk and Amanda Wilkens.