Meeting: 999, Nashville, Tennessee, SS 1A, Special Session on Von Neumann Algebras and Noncommutative Ergodic Theory

999-46-149 **Sorin Popa** (popa@math.ucla.edu), CA, and **Roman Sasyk*** (rsasyk@math.purdue.edu).

Cohomology of Actions of groups by Bernouilli shifts.

We prove that if G is a countable, discrete group having infinite, normal subgroups with the relative property (T), then the Bernoulli shift action of G on $\prod_{g \in G} (X_0, \mu_0)_g$ for (X_0, μ_0) an arbitrary probability space, has first cohomology group isomorphic to the character group of G. Related results willl be discussed. (Received August 20, 2004)