1035-37-683 Alexander S. Kechris*, Department of Mathematics, Caltech, Pasadena, CA 91125. Global aspects of ergodic group actions and equivalence relations. Preliminary report.

I will discuss some recent work concerning the structure of the space of measure preserving actions of a countable (discrete) group on a standard measure space and the associated first cohomology space. Partly this work is motivated by the study of foundational questions, such as the complexity of the problem of classification of actions up to conjugacy or orbit equivalence. (Received September 13, 2007)