

COMPACT GROUP ACTIONS AND ALGEBRAIC TOPOLOGY

WILLIAM BROWDER

Princeton University

A new point of view is introduced in the study of free actions on finite dimensional spaces to enable the use of many standard constructions of algebraic topology (such as Postnikov systems) in the study of problems in group actions, such as: What is the maximal rank r of an elementary abelian group that acts freely on a product of k different spheres (the Rank Conjecture: r is less than or equal to k)