

Action Dimension and L^2 -homology

Boris Okun

(University of Wisconsin–Milwaukee)

Abstract

The action dimension of a group G , $\text{actdim}(G)$ is the least dimension of a contractible manifold which admits a proper G -action. The action dimension conjecture states that L^2 -homology of any group G vanishes above $\text{actdim}(G)/2$.

I will explain the equivalence of this conjecture to the classical Singer conjecture, and describe its current status.

This is based on a joint work with Kevin Schreve.