1084-51-275 **Grigori I Avramidi*** (gavramid@math.uchicago.edu). *Action dimension of right angled Artin groups.* Preliminary report.

A right angled Artin group is a group with a presentation determined by a finite graph in the following way: the generators are the vertices of the graph and two generators commute if the corresponding vertices are connected by an edge. These interpolate between free groups and free abelian groups and arise as fundamental groups of some nonpositively curved complexes, which are usually not manifolds. I will discuss ways to determine the minimal dimension of an aspherical manifold whose fundamental group is a given right angled Artin group. This is part of a joint project with Mike Davis and Boris Okun. (Received September 03, 2012)