1079-51-58 **Boris Okun*** (okun@uwm.edu) and **Richard Scott**. *The Strong Atiyah Conjecture for the weighted L^2-Betti numbers of the infinite dihedral group.*

The Strong Atiyah Conjecture predicts possible denominators for the L^2-Betti numbers of a space with a proper cocompact group action in terms of the torsion of the group. For reflection type actions by Coxeter groups there is a deformation of the usual L^2-theory, the so-called weighted L^2-homology. I will explain what seems to be an appropriate generalization of the Strong Atiyah Conjecture in the weighted setting, and give its proof in the simplest nontrivial case — the infinite dihedral group. This a joint work work with Richard Scott (Santa Clara University). (Received December 13, 2011)