Speaker: Matt Clay

Title: L^2-torsion for free-by-cyclic groups

Abstract: I will provide an upper bound on the L^2-torsion of a free-by-cyclic group, in terms of a relative train-track representative for the monodromy. This result shares features with a theorem of Lück-Schick computing the L^2-torsion of the fundamental group of a 3-manifold that fibers over the circle in that it shows that the L^2-torsion is determined by the exponential dynamics of the monodromy. In light of the result of Lück-Schick, a special case of this bound is analogous to the bound on the volume of a 3-manifold that fibers over the circle with pseudo-Anosov monodromy by the normalized entropy recently demonstrated by Kojima-McShane.