

ANALYTIC TORSION OF MANIFOLDS WITH FIBERED CUSPS

PIERRE ALBIN

Analytic torsion is a spectral invariant of the Hodge Laplacian of a manifold with a flat connection. On a closed manifold it is equal to a topological invariant known as Reidemeister torsion. I will describe joint work with Frdric Rochon and David Sher establishing a topological expression for the analytic torsion of a manifold with fibered cusp ends (such as a locally symmetric space of rank one). We establish our result by controlling the behavior of the spectrum along a degenerating class of Riemannian metrics.