



Analytic torsion versus Reidemeister torsion on hyperbolic 3-manifolds with cusps

Jonathan Pfaff

(Submitted on 1 Jun 2012)

For a non-compact hyperbolic 3-manifold with cusps we prove an explicit formula that relates the regularized analytic torsion associated to the even symmetric powers of the standard representation of $SL_2(\mathbb{C})$ to the corresponding Reidemeister torsion. Our proof rests on an expression of the analytic torsion in terms of special values of Ruelle zeta functions as well as on recent work of Pere Menal-Ferrer and Joan Porti.

Comments: 23 pages

Subjects: **Spectral Theory (math.SP)**; Differential Geometry (math.DG); Geometric Topology (math.GT)

Cite as: **arXiv:1206.0228 [math.SP]**
(or **arXiv:1206.0228v1 [math.SP]** for this version)

Submission history

From: Jonathan Pfaff [[view email](#)]

[v1] Fri, 1 Jun 2012 15:40:05 GMT (23kb)

[Which authors of this paper are endorsers?](#)

Link back to: [arXiv](#), [form interface](#), [contact](#).

Download:

- [PDF](#)
- [PostScript](#)
- [Other formats](#)

Current browse context:

math.SP

[< prev](#) | [next >](#)

[new](#) | [recent](#) | [1206](#)

Change to browse by:

[math](#)

[math.DG](#)

[math.GT](#)

References & Citations

- [NASA ADS](#)

Bookmark([what is this?](#))

