DUBROVNIK VI - Geometric Topology

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On Reidemeister torsion of a symplectic complex

Let S be a compact surface with genus at least 2. We consider the Teichmüller space $\mathfrak{Teich}(S)$ of S. By fixing a maximal geodesic lamination, in [1] we showed the relation between the Weil-Petersson and Thurston symplectic forms. In this talk, we will explain the relation between Reidemeister torsion and Pfaffian of Weil-Petersson form and hence Pfaffian of Thurston symplectic form.

References

- [1] Y. Sözen, F. Bonahon. Weil-Petersson and Thurston symplectic forms, *Duke Math. Jour.* Vol 108 No. 3 (2001), pp 581–597.
- [2] Y. Sözen. Reidemeister Torsion of a Symplectic Complex, *Osaka Jour. of Mathematics*, to appear.