ERRATA FOR COMPUTING INTERSECTIONS OF CLOSED GEODESICS ON THE MODULAR CURVE

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- In Corollary 3.7, the term "strongly inequivalent" is not required, and should be removed.
- It should have been noted that the connection between linking numbers and intersection numbers of modular geodesics goes back to Birkhoff in [Bir17].
- We use the terminology "self-intersections" in the case of overlapping geodesics. A better choice of terminology would be "transverse intersections."
- Conjectures 4.3 and 4.4 have been settled (and generalized) by Junehyuk Jung and Naser Sardari in [JS21].
- The generalization of Theorem 3 is Theorem 1.10 (and even more generally, Theorem 6.2) of [Ric21]. This paper contains all the details of the sketched proof here.
- The comment following Definition 1.4 was incorrect: a curve passing through a point n times contributes $n(n-1)$ transverse intersections with itself, since the order of intersection matters.

References

[Bir17] George D. Birkhoff. Dynamical systems with two degrees of freedom. *Trans. Amer. Math. Soc.*, 18(2):199–300, 1917.

[JS21] Junehyuk Jung and Naser Talebizadeh Sardari. Intersecting geodesics on the modular surface, 2021.

[Ric21] James Rickards. Counting intersection numbers of closed geodesics on Shimura curves, 2021.

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