

## CORRIGENDUM

# Effective mixing and counting in trees – CORRIGENDUM

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Given a locally finite simplicial tree  $\mathcal{T}$ , the term *weighted spectral gap* (WSG) is defined in the paper [3], for a pair  $(\Gamma, F)$  of a full discrete subgroup  $\Gamma$  of  $\text{Aut}(\mathcal{T})$  and a  $\Gamma$ -invariant potential  $F$ . If  $(\Gamma, F)$  has a WSG, then the exponential mixing property of the geodesic translation map  $\phi: \Gamma \backslash \mathcal{ST} \rightarrow \Gamma \backslash \mathcal{ST}$  with respect to the measure  $m_{\Gamma, F}^{v^-, v^+}$  holds whenever the length spectrum of  $\Gamma$  is not arithmetic.

It was claimed in Example 4.1 in [3] that geometrically finite groups have a WSG for any constant potential. However, that statement is misleading because a geometrically finite discrete group in  $\text{Aut}(\mathcal{T})$  can never be full unless it is convex cocompact. Nevertheless, it is proved in [2] that the exponential mixing property of the discrete time geodesic flow still holds. Their argument contains a new method of coding the discrete time geodesic flow without assuming the group  $\Gamma$  is full and a suitable application of the Young's tower method, introduced in [4].

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## REFERENCES

- [1] J. Athreya, A. Ghosh and Prasad. Ultrametric logarithm laws, II. *Monatsh. Math.* **167** (2012), 333–356.
- [2] A. Broise-Alamichel, J. Parkkonen and F. Paulin. Equidistribution and counting under equilibrium states in negatively curved spaces and graphs of groups. Applications to non-Archimedean Diophantine approximation. *Preprint*, 2016, arXiv:1612.06717.
- [3] S. Kwon. Effective mixing and counting in Bruhat–Tits trees. *Ergod. Th. & Dynam. Sys.* doi:10.1017/etds.2016.28. Published online 4 July 2016.
- [4] L.-S. Young. Recurrent times and rates of mixing. *Israel J. Math.* **110** (1999), 153–188.