

σ -LACUNARY ACTIONS OF POLISH GROUPS

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We show that every essentially countable orbit equivalence relation induced by a continuous action of a Polish group on a Polish space is σ -lacunary. In combination with [2] we obtain a straightforward proof of the result from [1] that every essentially countable equivalence relation that is induced by the action of abelian non-archimedean Polish group is Borel reducible to \mathbb{E}_0 , i.e., it is essentially hyperfinite.

REFERENCES

- [1] L. Ding, S. Gao. Non-archimedean abelian Polish groups and their actions. *Adv. Math.* 307, 312–343, 2017.
- [2] S. Gao, S. Jackson. Countable abelian group actions and hyperfinite equivalence relations. *Invent. Math.* 201 (1), 309–383, 2015.

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