

# Universality of embeddability between groups

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Working in the framework of Borel reducibility we study the quasi-order of embeddability between groups. We prove that the embeddability between countable groups and the topological embeddability between Polish groups are invariantly universal for analytic quasi-orders. The first strengthens a result by Williams [1], while the second improves a result by Ferenczi–Louveau–Rosendal [2]. Most of the techniques we use come from [3] and [1].

- [1] J. Williams, *Universal countable Borel quasi-orders*, J. Symb. Log. **79** (2014), no. 3, 928–954.
- [2] V. Ferenczi, A. Louveau, and C. Rosendal, *The complexity of classifying separable Banach spaces up to isomorphism*, J. Lond. Math. Soc. (2) **79** (2009), no. 2, 323–345.
- [3] R. Camerlo, A. Marcone, and L. Motto Ros, *Invariantly universal analytic quasi-orders*, Trans. Amer. Math. Soc. **365** (2013), no. 4, 1901–1931.

