

The complexity 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. The first strengthens a result by Williams [3], while the second improves a result by Ferenczi-Louveau-Rosendal [2]. Most of the techniques we use come from [1] and [3]. This is a joint work in progress with Luca Motto Ros.

References

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