

On two inductive Borel irreducibility theorems

Vladimir Kanovei*

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Orbit equivalence relations of generically turbulent Polish actions are not Borel reducible to equivalence relations of a family which includes Polish actions of S_∞ , the group of all permutations of \mathbb{N} , and is closed under the Fubini product modulo the ideal Fin of all finite sets, and some other operations. The equivalence relation T_2 , called the equality of countable sets of the reals, is not Borel reducible to another family of equivalence relations which includes continuous actions of Polish CLI groups, Borel equivalence relations with G_δ classes, some ideals, and is closed under the Fubini product over Fin . In connection with the latter result, a new family of *pinned* equivalence relations is discussed. Both results and their corollaries extend some earlier irreducibility theorems by Hjorth and Kechris.

References

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