

- ▶ ANDRÉS ARANDA, DAVID HARTMAN, *MB-homogeneous graphs*.
Institut für Algebra, Technische Universität Dresden, 12/14 Zellescher Weg, Germany.
E-mail: andres.aranda@gmail.com.
Computer Science Institute of Charles University, Charles University, Malostranské nám. 25, Czech Republic.

E-mail: hartman@iuuk.mff.cuni.cz. A relational structure G is homomorphism-homogeneous if every homomorphism f between finite induced substructures is the restriction of an endomorphism F of G to the domain of f (see [1]). A subtype of homomorphism homogeneity is IB-homogeneity, where each isomorphism between finite substructures extends to a bijective endomorphism of the ambient structure.

A variant of Fraïssé's theorem for IB-homogeneous structures establishes that the limit is unique up to bi-equivalence (M and N are bi-equivalent if every isomorphism with finite domain in M and image in N extends to a bijective homomorphism $M \rightarrow N$), but there exist uncountably many countable IB-homogeneous graphs, and even uncountably many pairwise non-isomorphic IB-homogeneous graphs in the same bi-equivalence class [2]. Thus, the best we can hope for is a classification up to the coarser relation of bimorphism equivalence. We present such a classification, answering a question from [2], as a corollary of a result stating that any connected homomorphism-homogeneous graph that does not contain the Rado graph as a spanning subgraph has finite independence number.

[1] PETER CAMERON, JAROSLAV NEŠETŘIL, *Homomorphism-homogeneous relational structures*, ***Combinatorics, probability and computing***, vol. 15 (2006), pp. 91–103.

[2] THOMAS D.H. COLEMAN, DAVID M. EVANS, ROBERT D. GRAY, *Permutation monoids and MB-homogeneous structures*, ***to appear in European Journal of Combinatorics***, .