

Rigid moieties of relational homogeneous structures

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Given a countable set X , a *moiety* of X is a subset which is countable and co-countable. A *rigid* embedding of a structure M into a structure N is an embedding where each automorphism of M extends uniquely to an automorphism of N . We prove the following:

Theorem 1. *Let \mathcal{K} be a not totally disconnected free amalgamation class in a finite relational language \mathcal{L} and assume that all the one-point sets in \mathcal{K} are isomorphic. Then every countably infinite \mathcal{L} -structure K , whose age lies in \mathcal{K} , can be embedded as a rigid moiety into the Fraïssé limit of \mathcal{K} , denoted \mathbf{K} . Moreover, there are 2^ω many such embeddings which are not conjugate in $\text{Aut}(\mathbf{K})$.*

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