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Dynamics of the Knaster continuum homeomorphism group

We use the projective Fraissé approach and Ramsey's theorem to show that the universal minimal flow of the homeomorphism group of the universal Knaster continuum is homeomorphic to the universal minimal flow of the free abelian group on countably many generators.

Knaster's continuum is a compact, connected metrizable space which is indecomposable: in the sense that it is not the union of two non-trivial compact, connected, metrizable subsets. We will define a projective Fraissé class whose limit approximates the universal Knaster continuum in such a way that the group $\text{Aut}(\mathbb{K})$ of automorphisms of the Fraissé limit is a dense subgroup of the group, $\text{Homeo}(K)$, of homeomorphisms of the universal Knaster continuum. The computation of the universal minimal flow involves modifying the Fraissé class in a natural way so that it approximates an open, normal, extremely amenable subgroup of $\text{Homeo}(K)$.