UNIVERSALITY OF AUTOMORPHISM GROUPS OF HOMOGENEOUS STRUCTURES

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A first-order structure is called *homogeneous* if every isomorphism between its finite substructures extends to an automorphism. Classical Fraïssé theory provides a correspondence between countable homogeneous structures and certain properties of their ages. The *age* of a structure M is the class $\mathrm{Age}(M)$ of all finite structures embeddable into M. One of the main features of homogeneous structures is their universality. Namely, if U is a homogeneous structure then every countable structure M with $\mathrm{Age}(M) \subset \mathrm{Age}(U)$ embeds into U. It turns out that most of the well known examples of countable homogeneous structures U have the property that the automorphism group $\mathrm{Aut}(U)$ is *universal* in the sense that it contains isomorphic copies of all groups of the form $\mathrm{Aut}(M)$ where M is a substructure of U (not necessarily finite). This holds in particular when the homogeneous structure can be constructed from its age in a functorial way.

The aim of the talk is to present a countable homogeneous structure whose automorphism group is not universal in the above sense.

This is joint work with Saharon Shelah