

## Posets, homomorphisms, and homogeneity

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A relational structure  $S$  is homogeneous if any isomorphism between finite substructures of  $S$  can be extended to an automorphism of  $S$ . A nice way of saying this is that “any local symmetry is global”. My research involves investigating a generalisation of the notion of homogeneity where “isomorphism” is replaced by “homomorphism” in the definition. In this talk I will begin by giving an introduction to countable homogeneous structures, looking in particular at posets, before presenting the classification theorem for homomorphism-homogeneous posets.