Homogeneous structures and a new poset

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Abstract

In 1991 Thomas conjectured that every homogeneous countable structure over a finite relational language has finitely many reducts. This has been solved for several individual structures, but we still don't know much in general. One of the intermediate steps would be to show that every structure which is a reduct of such a structure has finitely many *minimal* reducts. By Manuel Bodirsky, Michael Pinsker, and Todor Tsankov we know that the analogous statement is true for existentially positive reducts under some Ramsey assumptions. However we know that Thomas' conjecture is not true for existentially positive reducts in general. In order to get around this problem, in this talk I will introduce a new poset of structures giving rise to a possible generalization of Thomas' conjecture.