Amalgamation in lattice-ordered groups and cancellative residuated structures

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Abstract

Recently, there has been tremendous progress in developing a systematic theory of amalgamation in residuated structures, but extending this progress to cancellative residuated structures has proven to be one of the most significant challenges in this body of work. This series of lectures focuses on this problem, in particular charting the difficult terrain around amalgamation in lattice-ordered groups. We discuss both the landmark results in this field as well as new avenues toward the resolution of long open problems.