

Decidability of Distributive ℓ -pregroups

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We show that every distributive lattice-ordered pregroup can be embedded into a functional algebra over an integral chain, thus improving the existing Cayley/Holland- style embedding theorem. We use this to show that the variety of all distributive lattice-ordered pregroups is generated by the single functional algebra on the integers. Finally, we show that the equational theory of the variety is decidable.

Keywords: Lattice-ordered pregroups, Decidability, Equational theory, Variety generation, Residuated lattices, Lattice-ordered groups, Diagrams