Monomorphisms and epimorphisms in varieties of ordered algebras

Valdis Laan
University of Tartu
Tartu, Estonia

An ordered algebra is a poset equipped with monotone operations. Homomorphisms of ordered algebras of the same type are mappings that preserve operations and order. Varieties of ordered algebras are defined using inequalities (instead of identities) and these can be considered as categories. We consider different types of monomorphisms and epimorphisms (usual, regular, extremal) in such categories. In connection with such morphisms we also discuss quotients, Homomorphism Theorem, and factorization systems of ordered algebras.

This talk is based on joint research with Nasir Sohail.