

How generalized quasiorders appear in rectangular algebras

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Abstract

Rectangular algebras generalize rectangular bands (and include Płonka's diagonal algebras). Generalized quasiorders are a generalization of (binary) quasiorders to higher-arity relations and describe relations $\rho \subseteq A^m$ with the property that an operation $f : A^n \rightarrow A$ preserves ρ if and only if all unary translations of f do it. It turns out that, e.g., the graphs of fundamental operations of a rectangular algebra are generalized quasiorders, more precisely generalized partial orders. This is a joint talk with D. Jakubíková-Studenovská and S. Radeleczki.