

Local Versions of some Congruence Properties in Single Algebras ^{*}

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Abstract

We investigate some local versions of congruence permutability, regularity, uniformity and modularity. The results are applied to several examples including implication algebras, orthomodular lattices and relative pseudocomplemented lattices.

Key words: Congruence permutability, congruence regularity, congruence uniformity, congruence modularity.

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Congruence permutability, regularity, uniformity and modularity are well studied concepts in universal algebra. For the convenience of the reader we refer to [4]. We introduce and study some local versions of these notions.

In the following let $\mathcal{A} = (A, F)$ be an arbitrary but fixed algebra and a, b arbitrary but fixed elements of A .

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