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ON CONGRUENCE SCHEMES AND COMPATIBLE RELATIONS OF ALGEBRAS

Abstract

By using congruence schemes we present a new characterization of algebras with modular congruence lattices. Then we prove new properties of compatible reflexive relations for k -majority algebras (in other terminology, for algebras having k -ary near unanimity operation among its term operations, $k \geq 3$). For algebras in congruence n -permutable varieties we show that every binary $(n - 1)$ -pretransitive compatible relation is symmetric. Then we obtain some consequences for some special types of relations.