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The lattice of congruence lattices of algebras on a finite set. (English) Zbl 1414.08001
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The congruence lattices of all algebras defined on a fixed finite set A ordered by inclusion form a finite atomistic lattice E . The authors describe the atoms, coatoms and irreducible elements of the lattice E . It is proved that the lattice E is tolerance-simple, whenever the set A has at least four elements.

Reviewer: Yuri Movsisyan (Yerevan)

MSC:

- 08A30 Subalgebras, congruence relations
- 06B15 Representation theory of lattices
- 08A60 Unary algebras
- 06A15 Galois correspondences, closure operators (in relation to ordered sets)
- 08A35 Automorphisms and endomorphisms of algebraic structures
- 20M20 Semigroups of transformations, relations, partitions, etc.

Cited in 1 Document

Keywords:

congruence lattice; unary operation; monounary algebra; join-irreducible element; meet-irreducible element; tolerance simple

Full Text: [DOI](#) [arXiv](#)

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