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Semigroups with Boolean congruence lattices. (English) Zbl 0623.20050
Monatsh. Math. 104, 1-15 (1987).

A construction of all globally idempotent semigroups with Boolean (complemented modular, relatively complemented, sectionally complemented, respectively) congruence lattice is given. Furthermore, it is shown that an arbitrary semigroup has Boolean (...) congruence lattice if and only if it is a special kind of inflation of a semigroup of the foregoing type. As applications, all commutative, finite, and completely semisimple semigroups, with Boolean (...) congruence lattice are completely determined.

MSC:

20M10 General structure theory for semigroups
06C15 Complemented lattices, orthocomplemented lattices and posets
06B15 Representation theory of lattices
20M15 Mappings of semigroups

Cited in **3** Documents

Keywords:

globally idempotent semigroups; complemented modular; relatively complemented; sectionally complemented; congruence lattice; Boolean; inflation; completely semisimple semigroups

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

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