

Bordalo, G.; Priestley, H. A.

Relative Ockham lattices: Their order-theoretic and algebraic characterisation. (English)

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Given a variety A of lattice-ordered algebras, a lattice L is said to be a relative A -algebra if every closed interval of L can be given the structure of an algebra in A . The class of lattice-ordered algebras under consideration here is the class of Ockham algebras (bounded distributive lattices together with a dual endomorphism). If A, B are varieties of Ockham algebras define $A \approx B$ if and only if the class of finite relative A -algebras coincides with the class of finite relative B -algebras. This is an equivalence relation on the varieties of Ockham algebras, and the main objective of the paper is to describe the equivalence classes of the varieties of Boolean, de Morgan, and Stone algebras. Varieties of distributive p -algebras are also considered.

Reviewer: T.S.Blyth

MSC:

06D30 De Morgan algebras, Łukasiewicz algebras (lattice-theoretic aspects)
06B20 Varieties of lattices

Cited in 3 Documents

Keywords:

relative lattices; bounded distributive lattices with a dual endomorphism; lattice-ordered algebras; varieties of Ockham algebras

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