

**Trillas, Enric; Alsina, Claudi; Pradera, A.**

**Searching for the roots of non-contradiction and excluded-middle.** (English) Zbl 1019.03049  
*Int. J. Gen. Syst.* 31, No. 5, 499-513 (2002).

The authors discuss standard propositional formulas which are counted as formalizations of the principles of non-contradiction and of excluded middle. Their aim is to discuss under rather weak algebraic assumptions the truth-value structure conditions under which these formulas become valid or equivalent. Their basic structure is a nonempty set equipped with a transitive binary relation  $R$ , modeling entailment, and a unary operation that has to be  $R$ -reversing, hence a structure which subsumes, e.g., orthomodular and De Morgan lattices.

Reviewer: Siegfried Johannes Gottwald (Leipzig)

**MSC:**

**03G25** Other algebras related to logic  
**03B52** Fuzzy logic; logic of vagueness

Cited in **12** Documents

**Keywords:**

algebraic logic; excluded middle; non-contradiction

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