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**Pseudo-BL algebras. I.** (English) [Zbl 1028.06007](#)

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*P. Hájek's* basic logic [see his book: *Metamathematics of fuzzy logic*, Dordrecht: Kluwer (1998; [Zbl 0937.03030](#))] is the logic of all continuous t-norms and their residua. The Lindenbaum algebras of basic logic are known as BL algebras. Pseudo-BL algebras are a noncommutative generalization of BL algebras. They include pseudo-MV algebras, the latter being categorically equivalent to lattice-ordered groups with a distinguished strong unit: this is Dvurečenskij's generalization of the present reviewer's categorical equivalence between MV algebras and abelian lattice-ordered groups with strong unit. The aim of this paper is to survey the theory of pseudo-BL algebras, give examples, and establish a number of basic (mainly equational or quasi-equational) properties. The authors also deal with homomorphisms and filters. A sequel to this paper, covering more advanced topics, is reviewed below [*ibid.* 8, 717-750 (2002; [Zbl 1028.06008](#))].

Reviewer: [D.Mundici \(Milano\)](#)

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