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Some properties of pseudo-BCK- and pseudo-BCI-algebras. (English) Zbl 1397.06028
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Summary: Pseudo-BCI-algebras generalize both BCI-algebras and pseudo-BCK-algebras, which are a non-commutative generalization of BCK-algebras. In this paper, following *J. G. Raftery* and *C. J. van Alten* [Rep. Math. Logic 34, 23–57 (2000; Zbl 0996.03040)], we show that pseudo-BCI-algebras are the residuation subreducts of semi-integral residuated po-monoids and characterize those pseudo-BCI-algebras which are direct products of pseudo-BCK-algebras and groups (regarded as pseudo-BCI-algebras). We also show that the quasivariety of pseudo-BCI-algebras is relatively congruence modular; in fact, we prove that this holds true for all relatively point regular quasivarieties which are relatively ideal determined, in the sense that the kernels of relative congruences can be described by means of ideal terms.

MSC:

06F35 BCK-algebras, BCI-algebras (aspects of ordered structures)

Cited in **2** Documents

Keywords:

pseudo-BCK-algebra; pseudo-BCI-algebra; filter; prefilter; ideal term; relative congruence modularity

Software:

Pseudo Hoops

Full Text: [DOI](#)

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