Discussiones Mathematicae
General Algebra and Applications 26(2006) 163–181
doi:10.7151/dmgaa.1110

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DM-GAA Page

DISTRIBUTIVE ORDERED SETS AND RELATIVE PSEUDOCOMPLEMENTS

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Abstract

Brouwerian ordered sets generalize Brouwerian lattices. The aim of this paper is to characterize α-complete Brouwerian ordered sets in a manner similar to that used previously for pseudocomplemented, Stone, Boolean and distributive ordered sets. The sublattice $G(P)$ in the Dedekind-Mac Neille completion $DM(P)$ of an ordered set P generated by P is said to be the characteristic lattice of P. We can define a stronger notion of Brouwerianicity by demanding that both P and $G(P)$ be Brouwerian. It turns out that the two concepts are the same for finite ordered sets. Further, the so-called antiblocking property of distributive lattices is generalized to distributive ordered sets.

Keywords: Brouwerian ordered set, distributive ordered set, relative pseudocomplement.

2000 Mathematics Subject Classification: 06A06.

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[1]The financial support of the Grant Agency of the Czech Republic under grant 201/99/0310 is gratefully acknowledged.

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Received 2 January 2006
Revised 31 January 2006