

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 Brouwerianity 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.

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