

Richard N. Ball, Aleš Pultr, Jiří Sichler
Combinatorial trees in Priestley spaces

Comment.Math.Univ.Carolinae 46,2 (2005) 217-234.

Abstract: We show that prohibiting a combinatorial tree in the Priestley duals determines an axiomatizable class of distributive lattices. On the other hand, prohibiting n -crowns with $n \geq 3$ does not. Given what is known about the diamond, this is another strong indication that this fact characterizes combinatorial trees. We also discuss varieties of 2-Heyting algebras in this context.

Keywords: distributive lattice, Priestley duality, poset, first-order definable

AMS Subject Classification: Primary 06D55, 06A11, 54F05; Secondary 06D20, 03C05