Bulletin de la Société Royale des Sciences de Liège, Vol. 77, 2008, pp. 104 - 119

(Manuscrit reçu le 30 juin 2008, accepté le 30 septembre 2008)

Priestley duality for distributive semilattices

G. Hansoul and C. Poussart

Abstract

In this paper, we extend Priestley duality for bounded distributive lattices to all bounded distributive semilattices. We show that we cannot take the prime spectrum as Priestley dual but have to turn to a suitable weakening of the concept of prime ideal.

1991 *Mathematics Subject Classification*. Primary 06D50, 06D05. Secondary 08B20.

Key words and phrases : Distributive semilattice. Free distributive lattice over a distributive semilattice. Priestley duality.