

ALGEBRAIC AND TOPOLOGICAL METHODS IN NON-CLASSICAL LOGICS III
(TANCL'07), August 5–9, 2007, St Anne's College, University of Oxford, Oxford, England

PRIESTLEY SPACES OF FREE MV-ALGEBRAS

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In [1] Panti describes prime ideals of free MV-algebras, by characterizing the prime ideals of free l -groups. In [2] Busaniche and Mundicci develop a different characterization using the geometric nature of the McNaughton's representation of free MV-algebras.

Following these ideas, in this work we will give a geometric description of the Priestley spaces of the lattice reducts of the free MV-algebras with finite number of generators. This description involves a characterization of the set of prime lattice filters of the free MV-algebra and its topology. These lattice filters are related with the prime theories of the semilattice based deductive system introduced and studied in [3].

[1] G. Panti, Prime Ideals in Free l -groups and the Free Vector Lattices, *Journal of Algebra* 219 (1999) 173-200.

[2] M. Busaniche and D. Mundici, Geometry of Robinson Consistency in Lukasiewicz Logic, *Annals of Pure and Applied Logic* (2007), doi:10.1016/j.apal.2006.11.003

[3] J.M. Font, À .J. Gil, A. Torrens and V. Verdú, On the Infinite-Valued Lukasiewicz Logic that Preserves Degrees of Truth, *Archive for Mathematical Logic*, 2006 , 45 , 839-868.

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