

Heyting κ -frames: the implicative structure of frames

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In the framework of algebras with infinitary operations, a class of algebras, called Heyting κ -frames, is investigated. An equational theory for these algebras is studied by resorting or adapting the methods and techniques of algebraic logic. This class of algebras turn out to be useful in dealing with the implicative structure of frames because several results obtained for Heyting κ -frames are naturally extended to frames [1, 2]. An equational type completeness theorem related to the $\langle \vee, \wedge, \rightarrow, 0 \rangle$ -structure of frames is obtained.

References

- [1] P. T. Johnstone, *Stone Spaces*, Cambridge Studies in Advanced Mathematics 3, Cambridge University Press, Cambridge, 1982.
- [2] J. Madden, *κ -frames*, Journal of Pure and Applied Algebra 70 (1991) 107-127.