# WEAK RELATIVE COMPLEMENTS IN ALMOST DISTRIBUTIVE LATTICES 

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#### Abstract

In this paper, the concept of relative complementation in almost distributive lattice is generalized. We obtain several properties on the sets of weak relative complement elements. We prove a sufficient condition for a weakly relatively complemented almost distributive lattice with dense elements to become a generalized stone almost distributive lattice.


Keywords: dense elements, relative complements, weak relative complementation, almost distributive lattice, generalized stone almost distributive lattice.
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## References

[1] G. Birkhoff, Lattice theory (Amer. Math. Soc. Colloquium Pub., 1967).
[2] G.C. Rao and G. Nanaji Rao, Dense elements in almost distributive lattices, Southeast Asian Bull. Math. 27 (2004) 1081-1088.
[3] G.C. Rao and M. Sambasiva Rao, Annihilator ideal in almost distributive lattices, Int. Math. Forum 4 (2009) 733-746.
[4] G.C. Rao and M. Sambasiva Rao, Annulets in almost distributive lattices, European. J. Pure and Applied Math. 2 (2009) 58-72.
[5] G.C.Rao and S. Ravi Kumar, Normal almost distributive lattices, Southeast Asian Bull. Math. 32 (2008) 831-841.
[6] S. Burris and H.P. Sankappanavar, A course in universal algebra (Springer-Verlag, 1980).
[7] S. Ramesh and G. Jogarao, Weakly relatively complemented almost distributive lattices, Palestine J. Math. 6 (2017) 1-10.
[8] U.M. Swamy and G.C. Rao, Almost distributive lattices, J. Austral. Math. Soc. 31 (1981) 77-91. doi:10.1017/S1446788700018498

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