

WEAK RELATIVE COMPLEMENTS IN ALMOST DISTRIBUTIVE LATTICES

RAMESH SIRISETTI

Department of Mathematics
GIT, GITAM University
Visakhapatnam- 530 045, India
e-mail: ramesh.sirisetti@gmail.com

AND

G. JOGARAO

Department of Mathematics
AJET Bhogapuram- 531 162, India
e-mail: jogarao.gunda@gmail.com

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.

2010 Mathematics Subject Classification: 06D75, 06B10.

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*, *South-east 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

Received 28 February 2017

Revised 27 June 2017

Accepted 6 November 2017