Full PDF

DM-GAA Page

BIPARTITE PSEUDO *MV*-ALGEBRAS

GRZEGORZ DYMEK

Institute of Mathematics and Physics
University of Podlasie
3 Maja 54, 08–110 Siedlce, Poland

e-mail: gdymek@o2.pl

Abstract

A bipartite pseudo *MV*-algebra A is a pseudo *MV*-algebra such that $A = M \cup M^\sim$ for some proper ideal M of A. This class of pseudo *MV*-algebras, denoted **BP**, is investigated. The class of pseudo *MV*-algebras A such that $A = M \cup M^\sim$ for all maximal ideals M of A, denoted $\mathbf{BP}_0$, is also studied and characterized.

Keywords: pseudo *MV*-algebra, (maximal) ideal, bipartite pseudo *MV*-algebra.

2000 Mathematics Subject Classification: 06D35.

REFERENCES

[1] R. Ambrosio and A. Lettieri, *A classification of bipartite MV-algebras*, Math. Japonica **38** (1993), 111–117.

[2] A. Di Nola, A. Dvurečenskij and J. Jakubík, *Good and bad infinitesimals, and states on pseudo MV-algebras*, Order **21** (2004), 293–314.

[3] A. Di Nola, F. Liguori and S. Sessa, *Using maximal ideals in the classification of MV-algebras*, Port. Math. **50** (1993), 87–102.

[4] G. Dymek and A. Walendziak, *On maximal ideals of GMV-algebras*, submitted.

[5] G. Georgescu and A. Iorgulescu, *Pseudo-MV algebras*, Multi. Val. Logic. **6** (2001), 95–135.

[6] J. Rachůnek, *A non-commutative generalization of MV-algebras*, Czechoslovak Math. J. **52** (2002), 255–273.

[7] J. Rachůnek, *Radicals in non-commutative generalizations of MV-algebras*, Math. Slovaca **52** (2002), 135–144.

[8] A. Walendziak, *On implicative ideals of pseudo MV-algebras*, Sci. Math. Jpn. **62** (2005), 281–287; e-2005, 363–369.