Discussiones Mathematicae
General Algebra and Applications 39 (2019) 113–114
doi:10.7151/dmgaa.1302

THE UP-ISOMORPHISM THEOREMS FOR UP-ALGEBRAS[1]

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Abstract

In this paper, we construct the fundamental theorem of UP-homomorphisms in UP-algebras. We also give an application of the theorem to the first, second, third and fourth UP-isomorphism theorems in UP-algebras.

Keywords: UP-algebra, fundamental theorem of UP-homomorphisms, first, second, third and fourth UP-isomorphism theorems.

2010 Mathematics Subject Classification: 03G25.

References

[1] S. Asawasamrit, *KK-isomorphism and its properties*, Int. J. Pure Appl. Math. **78** (2012) 65–73.

[2] J. Hao and C.X. Li, *On ideals of an ideal in a BCI-algebra*, Sci. Math. Jpn. (in Editione Electronica) **10** (2004) 493–500.

[3] Q.P. Hu and X. Li, *On BCH-algebras*, Math. Semin. Notes, Kobe Univ. **11** (1983) 313–320.

[4] A. Iampan, *A new branch of the logical algebra: UP-algebras*, J. Algebra Relat. Top. **5** (2017) 35–54.
doi:10.22124/JART.2017.2403

[5] A. Iampan, *Introducing fully UP-semigroups*, Discuss. Math., Gen. Algebra Appl. **38** (2018) 297–306.
doi:10.7151/dmgaa.1290

[6] Y. Imai and K. Iséki, *On axiom system of propositional calculi, XIV*, Proc. Japan Acad. **42** (1966) 19–22.
doi:10.3792/pja/1195522169

[1]This work was financially supported by the University of Phayao.

[7] K. Iséki, *An algebra related with a propositional calculus*, Proc. Japan Acad. **42** (1966) 26–29.
doi:10.3792/pja/1195522171

[8] Y.B. Jun, S.M. Hong, X.L. Xin and E.H. Roh, *Chinese remainder theorems in BCI-algebras*, Soochow J. Math. **24** (1998) 219–230.

[9] S. Keawrahun and U. Leerawat, *On isomorphisms of SU-algebras*, Sci. Magna **7** (2011) 39–44.

[10] C.B. Kim and H.S. Kim, *On BG-algebras*, Demonstr. Math. **41** (2008) 497–505.
doi:10.1515/dema-2013-0098

[11] K.H. Kim, *On structure of KS-semigroup*, Int. Math. Forum **1** (2006) 67–76.

[12] J.S. Paradero-Vilela and M. Cawi, *On KS-semigroup homomorphism*, Int. Math. Forum **4** (2009) 1129–1138.

[13] J.K. Park, W.H. Shim and E.H. Roh, *On isomorphism theorems in IS-algebras*, Soochow J. Math. **27** (2001) 153–160.

[14] C. Prabpayak and U. Leerawat, *On ideals and congruences in KU-algebras*, Sci. Magna **5** (2009) 54–57.

[15] A. Satirad, P. Mosrijai and A. Iampan, *Generalized power UP-algebras*, Int. J. Math. Comput. Sci. **14** (2019) 17–25.

Received 3 January 2019
Revised 12 February 2019
Accepted 14 February 2019