

## Semilaticces of Left Completely Archimedean Semigroups

STOJAN BOGDANOVIĆ AND MIROSLAV ĆIRIĆ

ABSTRACT. In this paper we introduce the notion of a left completely Archimedean semigroup, which is a generalization of the notion of a completely Archimedean semigroup. We give certain characterizations of semilattices of left completely Archimedean semigroups and some new results concerning semilattices of completely Archimedean semigroups.

### REFERENCES

- [1] S. Bogdanović, *Power regular semigroups*, Zb. rad. PMF Novi Sad, **12** (1982), 418–428.
- [2] S. Bogdanović, *Semigroups with a system of subsemigroups*, Inst. of Math., Novi Sad, 1985.
- [3] S. Bogdanović, *Semigroups of Galbiati-Veronesi II*, Facta Univ. Niš, Ser. Math. Inform., **2** (1987), 61–66.
- [4] S. Bogdanović and M. Ćirić, *Right  $\pi$ -inverse semigroups and rings*, Zbornik radova Fil. fak. Niš, **6** (1992), 137–140.
- [5] S. Bogdanović and M. Ćirić, *Semigroups*, Prosveta, Niš (1993), (in Serbian).
- [6] S. Bogdanović and M. Ćirić, *A note on left regular semigroups*, Publ. Math. Debrecen, **48/3-4** (1996), 285–291.
- [7] M. Ćirić and S. Bogdanović, *Decompositions of semigroups induced by identities*, Semigroup Forum, **46** (1993), 329–346.
- [8] A.H. Clifford and G. B. Preston, *The algebraic theory of semigroups*, Amer. Math. Soc., Vol. I, 1961, Vol. II, 1967.
- [9] W.D. Munn, *Pseudoinverses in semigroups*, Proc. Camb. Phil. Soc., **57** (1961), 247–250.
- [10] M.S. Putcha, *Semilattice decomposition of semigroups*, Semigroup Forum, **6** (1973), 12–34.
- [11] M.S. Putcha, *Rings which are semilattices of Archimedean semigroups*, Semigroup Forum, **23** (1981), 1–5.
- [12] L.N. Shevrin, *On decompositions of quasi-periodic semigroups into a band of Archimedean semigroups*, XIV Vsesoyuzn. algebr. konf. Tezisy dokl., **1** (1977), Novosibirsk, 104–105, (in Russian).

---

1991 *Mathematics Subject Classification*. Primary: 20M10; Secondary: 16A30.

*Key words and phrases*. Archimedean semigroups, Munn's lemma, Semilattices, Characterization of semilattices of left completely Archimedean semigroups.

- [13] L.N. Shevrin, *Theory of epigroups*, Mat. Sbornik, **185** (1994), No. 8, 129–160, (in Russian).
- [14] M.L. Veronesi, *Sui semigruppi quasi fortemente regolari*, Riv. Mat. Univ. Parma, (4) **10** (1984), 319–329.

FACULTY OF ECONOMICS  
UNIVERSITY OF NIŠ  
TRG JNA 11  
18000 NIŠ  
SERBIA AND MONTENEGRO  
*E-mail address:* sbogdan@pmf.pmf.ni.ac.yu

DEPARTMENT OF MATHEMATICS  
FACULTY OF PHILOSOPHY  
UNIVERSITY OF NIŠ  
ĆIRILA I METODIJA 2, P.O. Box 91  
18000 NIŠ  
SERBIA AND MONTENEGRO  
*E-mail address:* ciricm@bankerinter.net  
*E-mail address:* mciric@pmf.pmf.ni.ac.yu