

**SOME FINITE DIRECTLY INDECOMPOSABLE
NON-MONOGENIC ENTROPIC
QUASIGROUPS WITH QUASI-IDENTITY**

GRZEGORZ BIŃCZAK

*Faculty of Mathematics and Information Sciences
Warsaw University of Technology
00-661 Warsaw, Poland*

e-mail: binczak@mini.pw.edu.pl

AND

JOANNA KALETA

*Department of Applied Mathematics
Warsaw University of Agriculture
02-787 Warsaw, Poland*

e-mail: joanna_kaleta@sggw.pl

Abstract

In this paper we show that there exists an infinite family of pairwise non-isomorphic entropic quasigroups with quasi-identity which are directly indecomposable and they are two-generated.

Keywords: quasigroups, entropic quasigroups, abelian groups, involution.

2010 Mathematics Subject Classification: 20N05.

REFERENCES

- [1] G. Bińczak and J. Kaleta, *Cyclic entropic quasigroups*, *Demonstratio Math.* **42** (2009) 269–281.
- [2] G. Bińczak and J. Kaleta, *Finite simple monogenic entropic quasigroups with quasi-identity*, *Demonstratio Math.* **44** (2011) 17–27.
- [3] G. Bińczak and J. Kaleta, *Finite directly indecomposable monogenic entropic quasigroups with quasi-identity*, *Demonstratio Math.* **45** (2012) 519–532.
- [4] O. Chein, H.O. Pflugfelder and J.D.H. Smith, *Quasigroups and Loops: Theory and Applications* (Heldermann Verlag, Berlin, 1990).

- [5] J.J. Rotman, *An Introduction to the Theory of Groups* (Springer-Verlag, New York, 1994).
- [6] J.D.H. Smith, *Representation Theory of Infinite Groups and Finite Quasigroups* (Université de Montréal, 1986).

Received 14 March 2013
First Revision 8 April 2013
Second Revision 25 July 2013