

THE TABLE OF CHARACTERS OF SOME QUASIGROUPS

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Abstract

It is known that $(\mathbb{Z}_n, -_n)$ are examples of entropic quasigroups which are not groups. In this paper we describe the table of characters for quasigroups $(\mathbb{Z}_n, -_n)$.

Keywords: quasigroups, eigenvectors, eigenspaces, characters of quasigroups.

2000 Mathematics Subject Classification: 20N05.

REFERENCES

- [1] O. Chein, H.O. Pflugfelder and J.D.H. Smith, *Quasigroups and loops: theory and applications*, Berlin 1990.

The author was partially supported by the statutory grant of Warsaw University of Technology No. 504G 1120 0013 000.

- [2] K.W. Johnson and J.D.H. Smith, *Characters of finite quasigroups*, Eur. J. Comb. **5** (1984), 43–50.
- [3] J.D.H. Smith, *Representation Theory of Infinite Groups and Finite Quasigroups*, Université de Montréal 1986.
- [4] J.D.H. Smith, *Combinatorial characters of quasigroups*, pp. 163–187 in: Coding Theory and Design Theory, Part I: Coding Theory, (ed. Ray-Chaudhuri), Springer, New York, NY, 1990.
- [5] J.D.H. Smith, *Representation Theory of quasigroups*, Sci. Math. Japonicae **60** (2004), 171–204.

Received 29 April 2006

Revised 18 July 2006