

SHORTED OPERATORS WITH RESPECT TO A PARTIAL ORDER IN A DUAL MODULE

BURCU UNGOR, SAIT HALICIÖGLU AND ABDULLAH HARMANCI

Abstract. The purpose of this paper is to determine exactly the shorted operators in the sense of linear functionals under the direct sum partial order.

Mathematics subject classification (2010): 06A06, 06F25, 06F99, 16B99.

Keywords and phrases: Direct sum partial order, dual module, regular module, shorted operator.

REFERENCES

- [1] W. N. ANDERSON, JR., *Shorted operators*, Siam J. Appl. Math., 20(1971), 520–525.
- [2] W. N. ANDERSON, JR. AND G. E. TRAPP, *Shorted operators II*, Siam J. Appl. Math., 28(1975), 60–71.
- [3] W. N. ANDERSON, JR., T. D. MORLEY AND G. E. TRAPP, *Characterization of parallel subtraction*, Proc. Nat. Acad. Sci. U.S.A., 76(8)(1979), 3599–3601.
- [4] J. S. AUJLA AND M. S. RAWLA, *Some results on operator means and shorted operators*, Rend. Sem. Mat. Univ. Politec. Torino, 59(3)(2001), 189–198.
- [5] B. BLACKWOOD, S. K. JAIN, K. M. PRASAD AND A. K. SRIVASTAVA, *Shorted operators relative to a partial order in a regular ring*, Comm. Algebra, 37(2009), 4141–4152.
- [6] S. K. MITRA AND M. L. PURI, *Shorted operators and generalized inverses of matrices*, Linear Algebra Appl., 25(1979), 45–56.
- [7] K. NISHIO AND T. ANDO, *Characterization of operations derived from network connections*, J. Math. Anal. Appl., 53(3)(1976), 539–549.
- [8] M. RAÏSSOULI, *Extension of shorted operator to convex functionals*, Ann. Sci. Math. Quebec, 36(1)(2012), 179–192.