

Li, Zunfeng; Yang, Heju; Qiao, Yuying; Guo, Bingchan

Some properties of T-operator with bihypermonogenic kernel in Clifford analysis. (English)

Zbl 1371.30045

Complex Var. Elliptic Equ. 62, No. 7, 938-956 (2017).

Summary: In this paper, we give the definition of T-operator with bihypermonogenic kernel in Clifford analysis and discuss a series of properties of this operator, such as uniform boundness, Hölder continuity and γ -integrability. T-operator is a singular integral operator which is defined in the n -dimensional Euclidean space valued in the noncommutative Clifford algebra. The properties of T-operator play an important role in solving differential equations.

MSC:

30G35 Functions of hypercomplex variables and generalized variables
30E20 Integration, integrals of Cauchy type, integral representations of analytic functions in the complex plane

Cited in 1 Document

Keywords:

hypermonogenic functions; bihypermonogenic functions; singular integral operator

Full Text: [DOI](#)

References:

- [1] DOI: 10.2307/2369379 · Zbl 10.0297.02 · doi:10.2307/2369379
- [2] Brackx F, Clifford analysis (1982)
- [3] Gilbert RP, A function theoretic approach (1983)
- [4] Zhang ZX, Acta Math Sci 23 pp 692– (2003)
- [5] DOI: 10.1007/978-1-4612-1374-1_16 · doi:10.1007/978-1-4612-1374-1_16
- [6] Eriksson SL, Bull Belg Math Soc 11 pp 705– (2004)
- [7] DOI: 10.1007/s00006-009-0153-8 · Zbl 1172.30027 · doi:10.1007/s00006-009-0153-8
- [8] DOI: 10.1007/978-3-0348-7838-8_5 · doi:10.1007/978-3-0348-7838-8_5
- [9] DOI: 10.1007/BF02790269 · Zbl 1135.58013 · doi:10.1007/BF02790269
- [10] DOI: 10.1080/17476930801918985 · Zbl 1203.30057 · doi:10.1080/17476930801918985
- [11] DOI: 10.1080/17476930903197207 · Zbl 1177.30061 · doi:10.1080/17476930903197207
- [12] DOI: 10.1155/2014/974714 · doi:10.1155/2014/974714
- [13] Gilbert RP, Theory Appl. 21 pp 99– (1993)
- [14] Yang PW, Acta Math Sinica. 46 (5) pp 993– (2003)
- [15] Yang PW, Acta Math Sin 44 pp 343– (2001)
- [16] Vekua IN, Generalized analytic functions (1962)
- [17] DOI: 10.1080/00036811.2010.484390 · Zbl 1262.30055 · doi:10.1080/00036811.2010.484390
- [18] DOI: 10.1080/17476933.2015.1041110 · Zbl 1327.30060 · doi:10.1080/17476933.2015.1041110

This reference list is based on information provided by the publisher or from digital mathematics libraries. Its items are heuristically matched to zbMATH identifiers and may contain data conversion errors. It attempts to reflect the references listed in the original paper as accurately as possible without claiming the completeness or perfect precision of the matching.