Some additive results for the Wg-Drazin inverse of Banach space operators

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ABSTRACT.

We investigate additive properties of Wg–Drazin inverse of two Wg-Drazin invertible linear operators in Banach spaces under the commutative case. These results generalize recent works on the Drazin inverse of complex matrices.

REFERENCES

[1] Castro González, N. and Koliha, J. J., *New additive results for the g-Drazin inverse*, Proc. Roy. Soc. Edinburgh Sect. A, **134** (2004), 1085-1097

[2] Dajić, A. and Koliha, J. J. , *The weighted g–Drazin inverse for operators*, J. Australian Math. Soc., **82** (2007), 163–181

[3] Deng, C. and Wei, Y., *New additive results for the generalized Drazin inverse*, J. Math. Anal. Appl., **370** (2010), 313-321

[4] Djordjević, D. S. and Stanimirović, P. S., *On the generalized Drazin inverse and generalized resolvent*, Czechoslovak Math. J., **51** (2001), 617-634

[5] Djordjević, D. S. and Wei, Y., *Additive results for the generalized Drazin inverse*, J. Austral. Math. Soc., **73** (2002), 115-125

[6] Harte, R. E., *On quasinilpotents in rings*, Pan. Am. Math. J., **1** (1991), 10-16

[7] Hartwig, R. E., Wang, G. and Wei, Y., *Some additive results on Drazin inverse*, Linear Algebra Appl., **322** (2001) 207-217

[8] Hernández, A., Lattanzi, M. and Thome, N., *Weighted binary relations involving the Drazin inverse*, Appl. Math. Comput., **253** (2015), 215–223

[9] Koliha, J. J., *A generalized Drazin inverse*, Glasgow Math. J., **38** (1996), 367–381

[10] Lin, L. and Cui, X., *New perturbation bounds for the W-weighted Drazin inverse*, J. Appl. Math. Comput., **21** (2006), No. 1-2, 153–173

[11] Mosić, D. and Djordjević, D. S., *Additive results for the Wg-Drazin inverse*, Linear Algebra Appl., **432** (2010), 2847–2860

[12] Rakočević, V. and Wei, Y., *The W-weighted Drazin inverse*, Linear Algebra Appl., **350** (2002), 25–39

[13] Rakočević, V. and Wei, Y., *The Representation and Approximation of the W-weighted Drazin inverse of Linear Operators in Hilbert Space*, Appl. Math. Comput., **141** (2003), 455–470

[14] Wei, Y. and Deng, C., *A note on additive results for the Drazin inverse*, Linear and Multilinear Algebra, **59** (2011), No. 12, 1319-1329

[15] Wei, Y., Woo, C. W. and Lei, T., *A note on the perturbation of the W–weighted Drazin inverse*, Appl. Math. Comput., **149** (2004), No. 2, 423–430

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