

SOME ADDITIVE RESULTS FOR THE GENERALIZED DRAZIN INVERSE IN A BANACH ALGEBRA*

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Abstract. In this note, additive results are presented for the generalized Drazin inverse in Banach algebra. Necessary and sufficient conditions are given for the generalized Drazin invertibility of the sum of two commuting generalized Drazin invertible elements. These results are a generalization of the results from the paper [C.Y. Deng and Y. Wei. New additive results for the generalized Drazin inverse. *J. Math. Anal. Appl.*, 370:313–321, 2010.] to the Banach algebra case.

Key words. Banach algebra, Generalized Drazin inverse, Additive properties.

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