

LEFT AND RIGHT GENERALIZED DRAZIN INVERTIBLE OPERATORS ON BANACH SPACES AND APPLICATIONS

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Abstract. In this paper, left and right generalized Drazin invertible operators on Banach spaces are defined and characterized by means of the generalized Kato decomposition. Then, new binary relations associated with these operators are presented and studied. In addition, a new characterization of the generalized Drazin pre-order and a sufficient condition for that to be a partial order are given by using a matrix operator technique.

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