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**Some new perturbation results on left and right generalized Drazin invertible operators.**

(English) [Zbl 07274322](#)

*J. Adv. Math. Stud.* 13, No. 2, 192-201 (2020)

A bounded linear operator over a complex Banach space is said to be *left (right) generalized Drazin invertible*, if zero is not an accumulation point of its approximate point spectrum (surjectivity spectrum). It is called *generalized Drazin invertible*, if it is both left and right generalized Drazin invertible. The authors investigate the stability of these three classes of generalized Drazin invertible operators, under quasinilpotent, power finite rank, compact and Riesz commuting perturbations. A description of the largest open subset contained in the space of each of these three classes of operators.

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**MSC:**

**47A05** General (adjoints, conjugates, products, inverses, domains, ranges, etc.)

**47A55** Perturbation theory of linear operators

**47B06** Riesz operators; eigenvalue distributions; approximation numbers, *s*-numbers, Kolmogorov numbers, entropy numbers, etc. of operators

**47B07** Linear operators defined by compactness properties

**Keywords:**

generalized Drazin invertible operators; left and right generalized Drazin invertible operators; approximate point spectrum and surjectivity spectrum; quasinilpotent part and analytical core; commuting perturbations

**Full Text:** [Link](#)