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## Some Inequalities for Spectral Variations

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**Abstract:**

Over the last couple of decades, significant progress for the spectral variation of a matrix has been made in partially extending the classical Weyl and Lidskii theory [11,17] to normal matrices and even to diagonalizable matrices for example. Recently these theories have been established for relative perturbations. In this paper, we shall establish relative perturbation theorems for generalized normal matrix. Some well-known perturbation theorems for normal matrix are extended. As applying, some perturbation theorems for positive definite matrix (possibly non-Hermitian) are established.



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