RANK–ONE PERTURBATIONS OF NORMAL OPERATORS AND HYPONORMALITY

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Abstract. Let $T = N + u \otimes v$ be a rank-one perturbation of a normal operator $N$ acting on a separable, infinite dimensional, complex Hilbert space $\mathcal{H}$. It is proved that the hyponormality of $T$ is equivalent to the normality of $T$. Some characterizations of hyponormality[normality] of $T$ are obtained.


Keywords and phrases: Normal operator, hyponormal operator, rank-one perturbation, commutator.

REFERENCES