

Compact perturbations of linear operator that preserve spectral properties

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For an infinite dimension Banach space X , with $B(X)$ we denote the algebra of all linear bounded operator on X and $K(X)$ the ideal of all compact operators. For $T \in B(X)$, let $\sigma(T)$ be the spectrum of T , $\sigma_p(T)$ set of all eigenvalues of T , and $\pi_0(T)$ the set of all isolated eigenvalues of finite geometric multiplicity.

The perturbation of an operator by some compact operators is usual technic in areas of operators equations. Our interest is finding such compact operators that preserve some spectral properties of original operator. In this talk we will give conditions that Weyl's type theorems and the continuity of the spectrum move from T to $T + K$, $T \in B(X)$ and $K \in K(X)$.