FUGLEDE–PUTNAM THEOREM AND QUASISIMILARITY OF CLASS $p\text{-wA}(s,t)$ OPERATORS

M. Chō, T. Prasad, M. H. M. Rashid, K. Tanahashi and A. Uchiyama

Abstract. We show that $p\text{-wA}(s,t)$ operators $S, T^*$ ($s + t \leq 1$, $0 < p \leq 1$) with $\ker(S) \subseteq \ker(S^*)$ and $\ker(T^*) \subseteq \ker(T)$ satisfy Fuglede-Putnam theorem, i.e., $SX = XT$ for some $X$ implies $S'X = XT^*$. Also, we show that two quasisimilar $p\text{-wA}(s,t)$ operators $S, T$ ($s + t \leq 1$, $0 < p \leq 1$) with $\ker(S) \subseteq \ker(S^*)$ and $\ker(T) \subseteq \ker(T^*)$ have equal spectra and essential spectra.


Keywords and phrases: $p$-hyponormal operator, class $p\text{-wA}(s,t)$ operator, Fuglede-Putnam theorem, quasisimilar.

REFERENCES


