

# WEYL'S THEOREM, $a$ -WEYL'S THEOREM AND SINGLE-VALUED EXTENSION PROPERTY

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ABSTRACT. In this paper we investigate the relation of Weyl's theorem, of  $a$ -Weyl's theorem and the single valued extension property. In particular, we establish necessary and sufficient conditions for a Banach space operator  $T$  to satisfy Weyl's theorem or  $a$ -Weyl's theorem, in the case in which  $T$ , or its dual  $T^*$ , has the single valued extension property. These results improve similar results obtained by Curto and Han, Djordjević S. V., Duggal B. P., and Y. M. Han . The theory is exemplified in the case of multipliers of commutative semi-simple Banach algebras, in particular convolution operators on the group algebra  $L^1(G)$ , weighted shift operators on  $\ell^p(\mathbb{N})$ , with  $1 \leq p < \infty$ , as well as other classes of operators.

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