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The Bounded Approximation Property for Weakly Uniformly Continuous Type Holomorphic Mappings

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Abstract: When U is a balanced open subset of a reflexive Banach space E with $\mathcal{P}(^nE) = \mathcal{P}_w(^nE)$ for every positive integer n, we show that the predual of the space of weakly uniformly continuous holomorphic mappings on U, $G_{wu}(U)$, has the bounded approximation property if and only if E has the bounded approximation property if and only if $\mathcal{P}(^nE)$ has the bounded approximation property for every positive integer n. An analogous result is established for the predual of the space of holomorphic mappings of bounded type also.

Key words: Banach spaces, locally convex spaces, bounded approximation property, holomorphic mappings of bounded type, weakly uniformly continuous functions, bounded holomorphic mappings.

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