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 $\mathcal{P}(\mathcal{E}) = \mathcal{P}_w(\mathcal{E})$ 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 $\mathcal{P}(\mathcal{E})$ 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.


References


[26] MUJICA, J., NACHBIN, L., Linearization of holomorphic mappings on locally
[27] MUJICA, J., VALDIVIA, M., Holomorphic germs on Tsireland’s space, Proc.
300 (1994), 739–744.
[29] RYAN, R.R., “Applications of Topological Tensor Products to Infinite Dimen-
[30] RYAN, R.R., “Introduction to Tensor Products of Banach Spaces”, Springer-
[31] SCHOTTKEN, M., ě-product and continuation of analytic mappings, in
“Analyse Fonctionelle et Applications”, Actualités Sci. Indust. No. 1367,
[32] SCHWARTZ, L., Produits Tensoriels Topologiques d’Espaces Vectoriels