LINEAR TOPOLOGICAL INVARIANTS OF SPACES OF HOLOMORPHIC FUNCTIONS IN INFINITE DIMENSION

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Abstract

It is shown that if $E$ is a Frechét space with the strong dual $E^*$, then $H_b(E^*)$, the space of holomorphic functions on $E^*$ which are bounded on every bounded set in $E^*$, has the property $(DN)$ when $E \in (DN)$ and that $H_b(E^*) \in (\Omega)$ when $E \in (\Omega)$ and either $E^*$ has an absolute basis or $E$ is a Hilbert-Frechét-Montel space. Moreover the complementness of ideals $J(V)$ consisting of holomorphic functions on $E^*$ which are equal to 0 on $V$ in $H(E^*)$ for every nuclear Frechét space $E$ with $E \in (DN) \cap (\Omega)$ is stablished when $J(V)$ is finitely generated by continuous polynomials on $E^*$.

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