



DEPARTAMENTO DE
ANÁLISIS MATEMÁTICO Y
MATEMÁTICA APLICADA



SEMINARIO DE ANÁLISIS MATEMÁTICO Y MATEMÁTICA APLICADA

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Analytic structure and some geometric property of $H^\infty(BX)$

Abstract:

In this talk, we study the Banach algebra of bounded holomorphic functions on an infinite dimensional complex Banach space X . First, we review some results concerning an analytic structure of the spectrum (maximal ideal space) of $H^\infty(BX)$. Namely, we show that the open unit ball of ℓ^∞ can be embedded into any fiber of the spectrum of $H^\infty(Bc0)$. Second, we observe that for any complex Banach space X , the dual space of $H^\infty(BX)$ does not admit a weak*-strongly exposed point; consequently, it fails to have the Radon-Nikodym property. With the aid of this observation, we prove that $H^\infty(BX)$ has so called the Daugavet property.

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