

SEMINARIO DE ANÁLISIS Y APLICACIONES

Viernes 3 de marzo,

11:30 h., Módulo 17 - Aula 520 (Depto. Matemáticas UAM)

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The Commutator of the Bergman Projection

Resumen:

We discuss necessary and sufficient conditions for the commutator of the Bergman projection and multiplication by a measurable function b to be a bounded (or compact operator) on L^p . This problem is equivalent to the study of the boundedness and compactness of Hankel operators on the Bergman space. The correct conditions turn out to involve non-classical spaces of bounded mean oscillation (BMO) and vanishing mean oscillation (VMO), which depend on p and are defined relative to the hyperbolic metric. We will outline the general strategy of the proof of boundedness in the simplest case of the unit disk. Time permitting, we will discuss recent improvements of these results to strongly pseudoconvex domains with minimally smooth boundaries, which require several innovations.

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