SEMINARIO DE ANÁLISIS Y APLICACIONES

Viernes, 1 de julio de 2011

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

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A_2 conjecture and sharp bounds for commutators on weighted Lebesgue spaces

Resumen:

Last year saw the solution of the A_2-conjecture by Tuomas Hytönen: every Calderón-Zygmund operator obeys a linear bound on $L^2(w)$ with respect to the A_2-characteristic of the weight. The commutator of a Calderón-Zygmund singular integral operator with a BMO function is known to be more singular than the operator itself. In joint work with Carlos Pérez and Daewon Chung we showed that if a linear operator obeys a linear bound in $L^2(w)$ with respect to the A_2-characteristic of the weight, then the commutator obeys a quadratic bound. In light of Hytönen's result, this behavior is shared by all Calderón-Zygmund singular integral operators. In this talk we will discuss these results.

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