

SEMINARIO DE ANÁLISIS Y APLICACIONES

Martes, 8 de mayo de 2012

15:30 h., Módulo 17 (antiguo C-XV) - Aula 520 (Depto. Matemáticas UAM)

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Variational inequalities for singular integral operators

Resumen:

In this talk I will introduce variational estimates for singular integral operators defined on AD regular measures satisfying some geometric condition.

In particular, I will present the following result, which is a joint work with Xavier Tolsa: *let $0 < n < d$ be integers and let μ be an n -dimensional AD regular measure in \mathbb{R}^d . Then, μ is uniformly n -rectifiable if and only if the variation for the Riesz transform with respect to μ is a bounded operator in $L^2(\mu)$.*

This result is related to an important open problem, posed by David and Semmes, about the equivalence between uniform rectifiability and L^2 boundedness of the Riesz transforms.