Colloquium del Departamento

de Análisis Matemático

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"Weak type (1,1) for some operators related to the Laplacian with drift in real hyperbolic space"

Jueves 26 de noviembre de 2016
a las 13:00 horas en el seminario 222

Abstract:

Our setting is the *n*-dimensional hyperbolic space, where the Laplacian is given a drift in the "vertical" (or radial) direction. We consider the Riesz transforms of order 1 and 2, and also the Littlewood-Paley-Stein functions for the heat semi-group and the Poisson semigroup. These operators are known to be bounded on L^p, p>1, for the relevant measure. We show that all the Riesz transforms are most of the Littlewood-Paley-Stein operators are also of weak type (1,1). In the exceptional cases, we disprove the weak type (1,1). This is joint work with Hong-Quang Li.

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