

# SEMINARIO DE ANÁLISIS Y APLICACIONES XXVII MEMORIAL RUBIO DE FRANCIA

Jueves, 25 de junio de 2015

12:00 h., Módulo 17 (antiguo C-XV) - Aula 520 (Depto. Matemáticas UAM)

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Remarks on the uncertainty principle  
from a mathematical point of view

## **Resumen:**

I'll review some recent work done in collaboration with L. Escauriaza, C. Kenig and G. Ponce on some classical uncertainty principles in Mathematical Analysis as the ones due to Hardy and Morgan, and those that follow from Paley-Wiener theory.

We propose a new approach that makes no use of complex variable techniques and that is based on proving logarithmic convex inequalities for some appropriate quantities related either to solutions of the free Schrödinger Equation or to the Heat Equation. This new approach is flexible enough to be applied to non-regular hamiltonians.