SEMINARIO DE ANÁLISIS Y APLICACIONES

Viernes, 17 de octubre de 2014

10:30 h., Módulo 17 (antiguo C-XV) - Aula 520 (Depto. Matemáticas UAM)

Nikolai Nikolski

Université Bordeaux I

The hidden spectrum of Fourier multipliers

Resumen:

Given a weight w on the circle $\mathbb{T}$, Fourier-Hadamard multipliers of weighted L^2 space are considered. We show a class of weights with isolated singularities for which the multiplier algebra $Mult(L^2(\mathbb{T}, w))$ permits a complete description (in terms of capacitary inequalities). In particular, for all w having a finite set of "regular" singularities the spectrum of a multiplier $\lambda = \sum \lambda_n e^{int}$ is the closure of eigenvalues (λ_n) ("no hidden spectrum"), whereas for weights (even for Muckenhoupt weights) with an infinity of singularities the "hidden spectrum" does exist.

This is a joint project with Igor Verbitsky (Missouri-Columbia).

ICMAT CSIC-UAM-UC3M-UCM
Departamento de Matemáticas. U.A.M.