

Seminario de EDPs

Expositor

Lucrezia Cossetti
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Title: *Absence of eigenvalues of Schrödinger, Dirac and Pauli Hamiltonians via the method of multipliers.*

Abstract:

Originally arisen to understand characterizing properties connected with dispersive phenomena, in the last decades the method of multipliers has been recognized as a useful tool in Spectral Theory, in particular in connection with proof of absence of point spectrum for both self-adjoint and non self-adjoint operators.

In this seminar we will see the developments of the method reviewing some recent results concerning self-adjoint and non self-adjoint Schrödinger operators in different settings, specifically both when the configuration space is the whole Euclidean space $\mathbb{R}^d$ and when we restrict to domains with boundaries. We will show how this technique allows to detect physically natural repulsive and smallness conditions on the potentials which guarantee total absence of eigenvalues. Some very recent results concerning Pauli and Dirac operators will be also presented. The talk is based on joint works with L. Fanelli and D. Krejcirik.

Martes, 14 de enero, a las 16.00, en la sala de seminarios Felipe Alvarez del DIM. (Beauchef 851, torre norte, 5to piso).