

Theme 3: variational

Spectral stability via the method of multipliers

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Originally arisen to understand characterising 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 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 and relativistic Pauli and Dirac operators. Moreover we will show how this technique can be fruitful developed to obtain similar results for higher order operators. In particular special emphasis will be given to the case of perturbed bilaplacian.

The talk is based on joint works with L. Fanelli and D. Krejcirik.