



MAFIA - the seminar you can't refuse

The virial theorem and the method of multipliers in spectral theory

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Abstract: We provide a link between the virial theorem in quantum mechanics and the method of multipliers in theory of partial differential equations. After giving a physical insight into the techniques, we show how to use them to deduce the absence of eigenvalues and other spectral properties for electromagnetic Schrödinger operators. We focus on our recent developments in non-self-adjoint settings, namely on Schrödinger operators with matrix-valued potentials, relativistic operators of Pauli and Dirac types, and complex Robin boundary conditions.