

Eigenvalue Asymptotics for Dirichlet and Neumann Half-plane Magnetic Hamiltonians

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Abstract

In this talk we consider two Schrödinger operators with constant magnetic field on a half-plane, one defined with Dirichlet boundary conditions and another with Neumann boundary conditions. If V is a real, non-positive decaying electric potential, we study the discrete spectra of the original operators perturbed by V . In the Dirichlet case we show that, even under very weak perturbations V , infinitely many eigenvalues appear below the essential spectrum of the operator, while the Neumann case depends of the decaying rate of V . This is joint work with Vincent Bruneau and Georgi Raikov.