ON THE DISCRETE SPECTRUM FOR SELFADJOINT AND NON-SELFADJOINT OPERATORS

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ABSTRACT. Let H_0 be a selfadjoint operator with $\sigma(H_0) = [0, \infty)$. Let $H = H_0 + M$ such that H is unbounded and non-selfadjoint. Assume that $(s - H)^{-1} - (s - H_0)^{-1}$ is in the Schatten class $\mathfrak{S}^p$. Then the distribution of the eigenvalues of H can be estimated in terms of the Schatten norm $||M(s - H_0)^{-1}||_p$. These estimates give new results also for Schrdinger operators with complex potentials.

This is joint work with M. Hansmann (Clausthal) and H. Katriel (Haifa).