

# On the distribution of the eigenvalues for non-selfadjoint operators

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Let  $A$  be a selfadjoint operator. We are interested in the discrete spectrum of  $B = A + M$  where  $B$  is non-selfadjoint. If the resolvent difference  $R = (s - B)^{-1} - (s - A)^{-1}$  is in the Schatten class  $S_p$  then

$$\sum_{\lambda \in \sigma_{\text{disc}}(B)} \frac{\text{disc}(\lambda, \sigma(A))^\gamma}{|\lambda|^{\gamma/2}(1 + |\lambda|)^\gamma} \leq c \|R\|_p$$

where  $\gamma \geq \max(1 + p, 2p)$ .

By means of this estimate we can give qualitative estimates for the number of eigenvalues of  $B$  or their moments. That can be applied to Schrödinger operators with complex potentials.