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Eigenvalue asymptotics of perturbed selfadjoint operators. (English) Zbl 1243.47032
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The author studies perturbations of a selfadjoint positive operator T satisfying the α -non-condenseness condition ($\alpha > 0$):

$$n(t^{1/\alpha} + 0, T) - n((t - 1)^{1/\alpha}, T) \leq l \quad \text{for some } l \in \mathbb{N},$$

where $n(r, T)$ is the number of eigenvalues of T on $(0, r)$ including their multiplicity.

Conditions on a perturbation B are found under which

$$|n(r, T) - n(r, T + B)| \leq C[n(r + ar^\gamma, T) - n(r - ar^\gamma, T)] + C_1$$

for some positive constants C, C_1, a , and $\gamma \in [0, 1)$.

Reviewer: **Anatoly N. Kochubei (Kyïv)**

MSC:

47A55 Perturbation theory of linear operators

47B25 Linear symmetric and selfadjoint operators (unbounded)

Cited in **3** Documents

Keywords:

[perturbations of selfadjoint operators; eigenvalue asymptotics](#)

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