

## Maximum principles for the Schrödinger operator with singular potential

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Abstract: The Schrödinger operator  $-\Delta + V$  in  $R^N$  has been extensively studied for potentials in  $L^\infty$  and even  $L^p$  with any exponent  $p > N/2$ . Kato's inequality published in the Israel J. Math. in the 1970s was a major breakthrough in spectral problems by allowing one to consider potentials  $V$  that are merely  $L^1$ . We present new counterparts of the strong maximum principle and Hopf's boundary lemma for  $-\Delta + V$  on domains when  $V$  has a singular behaviour.