

Spectral instability of the Krein-von Neumann extension

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We briefly review the definition and some general properties of the Krein-von Neumann extension of a nonnegative symmetric operator. Our main objective is to discuss a result on the spectral instability: In contrast to the Friedrichs extension and other nonnegative self-adjoint extensions of the underlying symmetric operator it turns out that for the Krein-Neumann extension arbitrarily small additive negative perturbations automatically lead to negative spectrum.