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Review text:

Recommended reading of this interesting and insightful text should start from Section 4 which offers a transparent description of an illustrative example of the complex Darboux transformation of the standard linear harmonic oscillator potential $V(x)$ into a non-standard complex potential $U(x)$ of eq. (23) generating an additional, complex energy level ϵ called, for historical reasons, 'missing state'. This illustration explains what is meant by "quasi-isospectrality" of quantum Hamiltonians p^2+V and p^2+U. Then one may proceed to Section 2 which explains how one can make the latter two Hamiltonians strictly isospectral, getting rid of the above-mentioned exceptional and uncomfortable complex 'missing level' by a suitable re-specification of a Hamiltonian-dependent inner product in Hilbert space. By my opinion, the latter re-specification should have been accompanied by the citation of its (presumably, original) recommendation, in a not too different context, by F. G. Scholtz, H. B. Geyer and F. J. W. Hahne, in Ann. Phys. (NY) 213 (1992) 74.