This is a review text file submitted electronically to MR.

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Short title: This line will be completed by the MR staff.

Control number: 1976165

Primary classification: 81U15

Secondary classification(s): 81Q05 81S99

Review text:

The exactly solvable models like square well potential and/or its delta-function limiting case offer a lot of insight in the generic structure and character of bound and scattering states in quantum mechanics. In the letter the authors ask what happens with these models when you move beyond the framework of the latter physical theory and weaken the usual Hermiticity of the observables to their mere parity-pseudohermiticity. In an innovative, investigative and necessarily incomplete manner, the authors link the parity-violating terms in the potentials with their traditional physical sink/source meaning. First of all, they offer the explicit description of the scattering states. Two pictures illustrate the situation, opening new questions rather than answering too many of the old ones. The parallel study of the PT-symmetry breaking for bound states seems less exciting because it merely reproduces some older results (cf., e.g., ref. [31] or the study of the spontaneous breakdown of PT symmetry in the solvable square-well model by M. Znojil and G. Levai in Mod. Phys. Lett. A16 (2001) 2273-2280, hep-th/0111213). Still, as a whole the text represents a valid contribution to the recent intensive development of the subject as summarized recently during the 1st International Workshop "Pseudo-Hermitian Hamiltonians in Quantum Physics", with the proceedings to appear in Czechoslovak J. Physics, vol. 54, 2004, as its January issue.