This is a review text file submitted electronically to MR.

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**Short title:** Reflectionless $PT$-symmetric potentials in the one-dimensional Dirac equation.

**MR Number:** 2586146

**Primary classification:** 81Q12

**Secondary classification(s):** 81Q05 81Q60

**Review text:**

The amazing fact of the reality of the spectra of certain PT - symmetric (i.e., parity times time-reversal symmetric) quantum mechanical systems as conjectured by Bessis, Zinn-Justin, Bender and Boettcher and as first proved by P. Dorey, C. Dunning and R. Tateo (cf. J. Phys. A: Math. Gen. 34 (2001) 56795704) inspired not only a quick development of the so called PT - symmetric quantum mechanics of bound states (cf. [13] or [15] for thorough reviews, or an older paper [11] for the general theory) but also a disappointing failure of an attempted extension of this theory to the models of scattering (cf. [17] and [20] for an explanation).

Two ways our of the difficulty have been proposed. Along one of them (cf. M. Znojil, "Scattering theory using smeared non-Hermitian potentials", Phys. Rev. D. 80 (2009) 045009) one satisfies all of the standard physical requirements of the causality and unitarity of the scattering by means of the assumption that the PT - symmetric potentials must be allowed slightly, selfconsistently non-local. Alternatively, the parallel path of study of the strictly local PT - symmetric scattering potentials still survives as a fully legal means of an effective description of specific open quantum systems where the necessary loss of unitarity is simply attributed to some hidden effects of the environment.

The authors proceed along the second, pragmatic line of research. They extend their results presented in [16] to the relativistic quantum mechanics. They contemplate the Dirac's equation with different forms of the potentials (viz., scalars, pseudoscalars or mixtures of scalars and vectors) and they combine the requirement of the locality of the interaction with the supplementary require-

ment of the PT - symmetry of the related asymptotic wave functions. Naturally, the resulting scattering is reflectionless but the absence of the reflection still makes the model asymptotically meaningful.

The authors indicate that one could also extend the scattering scenario to certain specific asymptotically large potentials for which the reflectionless scattering may proceed along the real axis in a way shown feasible in [34]. We would like to add that the next extension of the theory applies to virtually arbitrary asymptotically large PT - symmetric potentials, requiring only that the scattering proceeds along certain suitable, asymptotically complex contours. The first concrete examples of such a type which parallel the bound-state theory quite closely may be found, e.g., in G. Lévai, P. Siegl and M. Znojil, "Scattering in the PT-symmetric Coulomb potential", J. Phys. A: Math. Theor. 42 (2009) 295201 or in M. Znojil, "Spiked potentials and quantum toboggans", J. Phys. A: Math. Gen. 39 (2006) 1332513336.