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Reviewer number:

## Address:

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Short title: Spherical-separability of non-Hermitian Hamiltonians and pseudo-

PT-symmetry.

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## Review text:

What the authors call pseudo-PT-symmetry occurring in separable non-Hermitian Hamiltonians coincides with the angular PT-symmetry which has been proposed and first used, almost ten years ago, by M. Znojil and M. Tater, in eq. (13) of paper "Complex Calogero model with real energies" [J. Phys. A: Math. Gen. 34 (2001) 1793-1803, quant-ph/0010087. Many papers on this subject followed (cf., e.g., M. Znojil, "PT symmetric models in more dimensions and solvable square-well versions of their angular Schroedinger equations", J. Phys. A: Math. Gen. 36 (2003) 7825 - 7838, quant-ph/0304046, etc). This does not mean that the subject has got exhausted these days: the long list of references appended to the Mustafa's and Mazharimousavi's paper offers the persuasive proof. Even the basic theoretical formulation of the subject does not look settled yet – a quick demonstration of the survival of differences in opinions as well as in the very physical interpretation of similar non-Hermitian models possessing real spectra would immediately emerge when the kind reader compares the text in question, say, with this AMS reviewer's own recent review paper defending his own interpretation of the underlying physical philosophy (cf. M. Znojil, "Three-Hilbert-space formulation of Quantum Mechanics", SIGMA 5 (2009), 001 (doi: 10.3842/SIGMA.2009.001 or arXiv:0901.0700). Naturally, the present reviewer's strong and long technical objections against statements like "... it is nowadays advocated (with no doubts) that the orthodoxal mathematical Hermiticity requirement to ensure the reality of the spectrum of a Hamiltonian is not only fragile but also physically deemed remote, obscure and strongly unnecessary" could be expected to exist, therefore. The more the present reviewer recommends reading all papers about this exciting and sometimes still controversial subject.