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**Review text:**

This paper offers a multiple surprise.

Firstly, its authors mention that the two-level evolution eq. (4) of their state-of-the-art-review section 2 is pseudo-Hermitian. This is the first, less important surprise: they do not pay any attention to the amazing fact that both the mathematical and physical origin of THIS equation (taken from refs. [24] and [25] published in 1987 and 1988, respectively) is more than TEN years older than ANY of the papers [1] - [17] on the use of pseudo-Hermitian generators of the time evolution in physics which the paper cites as a “motivation” in section 1.

The latter observation offers, implicitly, not only a new view of the history of PT symmetry and pseudo-Hermiticity but, in a broader methodical context, also a sad illustration of the current citation practice in science which starts to be characterized by the very frequent occurrence of virtually complete loss of the contact with all the relevant publications which happened to be “too old” (i.e., say, older than ten years), with ideas being “re-discovered” again and again.

The second surprise is the highly innovative character of the subsequent message delivered in sections 3 and 4, viz., a compact PSEUDO-HERMITIAN extension of the construction of the coherent states (numbered by the complex Grassmann variables), described in a way inspired by the “traditional”, Hermiticity-requiring construction pattern (cf. refs. [33] - [35] and [37]).

In a certain synthesis of my two remarks I must admit that I also belong to those who do forget: unfortunately, I cannot find a preprint where, as far as I can remember, a construction of pseudo-Hermitian coherent states has been proposed by Pinaki Roy with some co-author.