

This is a review submitted to Mathematical Reviews/MathSciNet.

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Mathematical Reviews/MathSciNet Reviewer Number: 13388

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Author: Valtancoli, P.

Title: Algebraic method for the harmonic oscillator with a minimal length.

MR Number: MR3114232

Primary classification: 81R60

Secondary classification(s): 81Q05

Review text:

Under the “publish or perish” commandment the author did not hesitate to split a single, rather elementary message about some exact solvability consequences of the deformation (1.1) of commutator between x and p into a series of four (sic!) shorter manuscripts. Thus, reading the six-page paper in question (available also, without Journal reference, via arXiv:1306.0117) could be accompanied by reading “Harmonic oscillators in a Snyder geometry” (arXiv:1306.0116, 7 pages, with the same initial commutator numbered as (2.1), and with the very very similar claim that “the quantization ... can be solved exactly”) and/or by the older MSs “Snyder Geometry and Quantum Field Theory” (arXiv:1209.4012, 10 pages, with the same initial commutator numbered as (1.2), etc) or, finally, the 5 pages of “Remarks on the harmonic oscillator with a minimal position uncertainty” (arXiv:1205.3546, the only MS self-cited as ref. [3], with the initial Eq. (2.2)).

The other problem with this paper is that the readers are given virtually no hints about the context and about the current state of the art. Among nine references provided in the third paper, the A. Bose’s fresh preprint [9] was only followed by the comparatively obsolete paper [8], dated 1997, and [7], dated 1997, etc. That number dropped further down to the (basically, subset) of the mere 5 items in the other 3 MSs.

This being said, the climax of the story is still to come: in the Arko Bose’s cited preprint the author stated that “As I have been able to prove in a more recent work, the main result of this paper is wrong. That’s why I am withdrawing this paper” [from arXiv].

Summarizing: up to a truly nice formula (3.2) and its consequences the paper provides, first of all, another proof of the steadily decreasing quality of the refereeing process in math. phys. literature.

Comments to the MR Editors (not part of the Review Text):

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