Qeios

Peer Review

Review of: "The Measurement of Superpositions"

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The author describes the theory of measurement in physics using known concepts like Cantor's set theory. He has well-researched known mathematics and physics facts. The quality of work (language, style, figure quality, etc.) is also pretty good.

However, some mathematical details, like uncertainty calculations, seem to be not rigorous enough, and certain formulas are unclear on how they were obtained. More clarifications of the formulas used would be good and its link to Quantum Mechanics. For example, he provided just a very heuristic assumption for the Heisenberg uncertainty principle given in terms of standard deviations of quantities that are lacking clarifications (for example, in equation 3, it is not clear why the exponents of u_i are p and q).

Also, the paper relies on known facts of metrology such that there is not much novelty in it. Quantum measurement has been studied in many research papers, and this paper is nothing that I can see as a real unique contribution to Quantum measurement. Quantum information theory has contributed a lot to these, so it would be beneficial for the author to read into these to give more insight into this topic.

Declarations

Potential competing interests: No potential competing interests to declare.

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