

Review of: "On Probabilities in Quantum Mechanics"

Thiago Prudêncio¹

1 Universidade Federal do Maranhão

Potential competing interests: No potential competing interests to declare.

The author discusses the concept of probability in quantum mechanics. Here are some suggestions for a final version of the paper:

- a) The introduction is very short. I think some discussions about the Copenhagen Interpretation and about the QBist interpretation, with, for instance, an example of a calculation where such a new interpretation can be used or diverges from the standard one. The detailed calculation could be shown in section 2. The terms QBist and QBism, used in the manuscript, should be clarified in the introduction.
- b) A new interpretation should come with results that overcome those of the standard interpretation. In this case, a discussion of the Stern-Gerlach experiment based on this new interpretation should be an important step to understand the differences between what can be found in this new interpretation.
- c) The author makes references to other papers, but there is a lack of information about their results, as in the phrase: "I will not here go into his detailed mathematics, but only his interpretation of this mathematics." I think the author could enter into more detailed mathematics with the appropriate interpretation. In particular, I suggest entering in detail about the observers O1 and O2 and the third observer, called Alice, including a diagram or figure to illustrate more clearly the idea.
- d) What about the quantum relativistic interpretation of probability? It is well known that in the context of relativistic quantum mechanics, there are some subtleties. Such a discussion could be part of the conclusion or a new section in the paper.

Qeios ID: VV1G47 · https://doi.org/10.32388/VV1G47