Review of: "On Purported Physical Realizations of So-called Quantum Information Technologies"

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In the fourth version of the manuscript (virtually unchanged since its last edition), as proof of the author's theorem of the General Principle of Measurements, the notion of isolated point is conflated with the notion of singleton. However, those are completely different objects. Key differences between them are as follows: A singleton refers to a set with a single element, while an isolated point refers to a specific type of point within a set that is not a limit point. More importantly, though, all points in a singleton set are isolated points, but not all isolated points form singleton sets.

Thus, despite the fact that Euclidean space does not contain isolated points, one can build a singleton set on it, e.g., by using indicator functions. This implies that measuring a coordinate of a physical system in a precise manner is possible, and so is Quantum Information Technology.

Even apart from the failed theorem of the General Principle of Measurements, the revised manuscript cannot deserve a higher score. It is written in careless and vague language and is full of odd or flatly wrong statements. Just to mention a few:

1. "The quantum-mechanical description of the physical world is based on quantum superposition" – Wrong. It is based on the Schrödinger equation, which describes not only molecular, atomic, and subatomic systems, but also macroscopic systems, possibly even the whole universe. As to quantum superposition, it states that linear combinations of solutions to the Schrödinger equation are also solutions of the Schrödinger equation. This follows from the fact that the Schrödinger equation is a linear differential equation in time and position.

2. "Needless to say, probability can describe any observed random phenomenon." – Wrong again. Nothing can describe random phenomena with precision and predictive power; that is why it is called random. Moreover, random events are unpredictable, while probable events are expected to occur based on likelihood. Random events have no inherent likelihood, whereas probable events have a higher chance of happening. Accordingly, probability can describe only probable events.