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

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Let x and y be points in the space R^3 and let $d(x, y)$ denote the distance between them. Suppose for the moment that to measure $d(x, y)$ in a perfectly precise manner would require x and y to be isolated points. Now, take into account that R^3 has no isolated points. As a result, the distance $d(x, y)$ cannot be measured exactly; in particular, it is possible to measure $d(x, y)$ as zero when $x \neq y$. But then the property of **Identity of Indiscernibles** asserting that $d(x, y) = 0$ if and only if $x = y$ cannot hold true. However, without such a property, the space R^3 cannot be metric (cannot form a metric topology). This contradicts *the General Principle of Measurements* proclaiming that the space R^3 is endowed with the metric. Thus, the manuscript lacks consistency, to say the least.

In a broader context, it's a fallacy to assume that quantum mechanics can be disproved by finding a fault in its mathematical apparatus. Even in the early 20th century, the mathematical tools used in quantum mechanics were already deemed standard.

Philosophical interpretations of quantum mechanics, on the other hand, are another matter: the question of how to interpret the mathematical formulation of quantum mechanics has given rise to a variety of different, more often than not, mutually exclusive answers. Most importantly, though, all those answers have unresolved deficiencies.