

Review of: "On Quantum Superposition"

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Potential competing interests: No potential competing interests to declare.

The author claims “that In the conceptual scheme of current quantum theory, omission of unattainability of precise coordinates is an unfortunate flaw, which is largely responsible not only for the invalidity of quantum superposition in description of the physical world but also for various ineligible applications of quantum mechanics.”

It is indeed questionable whether individual quantum systems are simultaneously in physically incompatible states. This would mean non-local interactions in entangled states. However, these are ruled out by the refutation of Bell's theorem by deterministic models with hidden variables. See <https://ijqf.org/archives/6946>. This leads to the conclusion that the quantum superposition does not describe a single system but an ensemble, but not that superpositions do not describe reality. This was also Einstein's opinion.

It has not been proven by the author that the inaccuracy of the measurements is responsible for the fact that the measured QM correlations are not represented by Bell's inequality. All conceivable loopholes are now closed. The differences are rather due to the fact that the derivation of Bell's inequality was based on incorrect assumptions. See quote above.