Review of: "Quantum Entities and the Nature of Time"

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Potential competing interests: No potential competing interests to declare.

The manuscript provides a comprehensive perspective on the foundations of quantum theory, emphasizing the nascent understanding of elementary particles in 1927 and their role in shaping the conceptual framework. The paper primarily focuses on the delocalization of quantum entities in space, attributing this phenomenon to the interactions of elementary particles.

The paper impressively scrutinizes the implications of complex time on quantum behavior, especially regarding particle delocalization. However, a deeper analysis into experimental implications or observational consequences of the proposed framework would strengthen the manuscript's credibility.
1) How feasible is it to experimentally validate the notion of complex time and its relationship with quantum entities? Are there specific experimental setups or empirical observations that could corroborate or challenge this theory?

2) In your framework, how does the proposed complex time concept affect the measurement of observables in quantum systems? Can you discuss its implications for experiments involving quantum entanglement or superposition?

3) How does this proposed model align with current quantum field theories, such as QED or QCD? Can you illustrate how your framework accounts for interactions beyond the Standard Model, like gravitational interactions, if applicable?

4) Are there potential technological advancements or practical applications arising from this conceptual framework? Can this theory guide advancements in quantum computing, sensing, or other technological domains?

In conclusion, the paper offers a thought-provoking paradigm shift by introducing complex time as a mediator of quantum entity interaction with space. To enhance its impact, addressing the challenging questions and providing empirical grounding or experimental predictions would further strengthen the manuscript's significance within the quantum physics community.