Review of: "Quaternion Quantum Mechanics: Unraveling the Mysteries of Gravity and Quantum Mechanics within the Planck-Kleinert Crystal"

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Potential competing interests: No potential competing interests to declare.

It is a very interesting new idea for theory of quantum mechanics which present origin for the gravity too. This is a new perspective to interpretation of the natural phenomena. Particularly it explains the issue of non-locality in the theory of measurements in quantum mechanics via the soliton waves. The respected referees discussed several important points to improve the article. Hence in my opinion, two points which given in what follows can be improved the article too. It is better for the esteemed author to derive a formula for time-dependent Schrödinger equation too. Also as an application of the model I propose to use of this model for description of an observational physical phenomenon and then compare its predictions with which ones given by the standard Copenhagen quantum mechanics theory, explain and interpret this model and show its advantages. In short, I have a problem with equations (3) where there is a second order time derivative (time symmetry) while in the ordinary Schrodinger equation the time derivative is first order without the time symmetry property? Hence how can obtain a suitable correspondence to this via the QQM model if we assume the quantum particles behave non-relativistic?

Sincerely yours