

[Review Form2](#)

Book Name:	Current Research Progress in Physical Science
Manuscript Number:	Ms_BPR_2925
Title of the Manuscript:	QUANTUM MECHANICS AS A THEORY BASED ON THE GENERAL THEORY OF RELATIVITY
Type of the Article	Book chapter

PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.	Equation (10) defines a probability density ρ from a probability wave function Ψ from QM whose squared amplitude is the probability of finding the particle in some finite region of space at a given time. Refer to Gravitation and Spacetime by Ohanian & Ruffini (2 nd ed), where a particle system and field system are delineated with either Lagrangian (p. 638). You failed to define your signs in the GR metric. Eq (14) has \dot{x} substituted as cv , which is a scaled velocity. You failed to define c . Your mass M is not a constant density, but it is spread out as continuous dynamical matter of an integral. I believe you are incorrectly substituting a wave function Ψ as a field Ψ , which are not the same in your (11). GR is a model for gravity, but GR is not a model for QM calculations. Did you obtain Schrodinger's equation from your version of the Lagrangian applied to the framework that you defined and derived? QED is the most successful theory of physics that has been tested to 10 or more significant digits over the past 60 years. QED theory considers electrons and photons as particles without any waves. The calculations are extremely long and involve nearly a million terms to sum up the final vector of a subatomic event and square its amplitude for the probability of that event occurring.	
Is the title of the article suitable? (If not please suggest an alternative title)	Quantum Mechanics as a Theory Based on the Framework of General Theory of Relativity	
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.	Yes. No changes	
Are subsections and structure of the manuscript appropriate?	Subtitles are adequate. Figure 1 in Section 2 should have additional dotted columns with fainter or fewer dots per column on each side. The double slit experiment is not limited to only 4 columns.	
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.	Einstein never considered General Relativity (GR) as an extension of quantum mechanics (QM). He never used QM wave functions as gravitational fields (specifically, his version of space-time). The authors need to address this issue to ensure this subject is derived on sound physics principles.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	Adequate for the written text.	

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Minor REVISION comments	Yes	
Is the language/English quality of the article suitable for scholarly communications?		
<u>Optional/General</u> comments	A recent article raised the issue that light speed may vary due to the net velocity between the light source and detector, based on ultraprecise clock synchronizations with optical clocks. See Journal of Modern Physics, Vol 15, No. 7, June 19, 2024. If the total light speed varies, then this chapter will be an excellent approximation, but not exact.	

PART 2:

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Are there ethical issues in this manuscript?	<i>(If yes. Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

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