



SDI Review Form 1.6

Journal Name:	Physical Science International Journal
Manuscript Number:	Ms_PSIJ_28935
Title of the Manuscript:	The electrodynamic vacuum field theory approach and the electron inertia problem revisiting
Type of the Article	

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

	Reviewer's comment	Author's comment (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)
Compulsory REVISION comments	<p>- the title should be revised: the word "revisiting" is not appropriate. Try to change it to be "revisited."</p> <p>- the paper seems to be adequately rigorous but the language is hard to follow, probably because many sentences are not written correctly according to english grammar. This issue needs to be addressed properly, to make the arguments flowing smoothly.</p> <p>- regarding the pages, the paper is too long. It is recommended to split it into 3-4 shorter papers: a. Philosophical foundations, b. basic derivation and results, c. Some implications and possible observation.</p> <p>- the philosophical reasoning to argue in favor of vacuum field theory is not clearly expressed. The author jumped straightly to lagrangian analysis etc.</p> <p>- it is advised to give an introduction containing: a. Literature review on existing vacuum models, such as classical aether model, superfluid aether, planckian aether (Friedwardt Winterberg), and also inerton (Volodymyr Krasnoholovets), and then b. please describe why he/she proposes vacuum field theory, and what are its advantages over existing vacuum models.</p> <p>- while the lagrangian analysis and hamiltonian analysis seem adequate, I do not see a clear description of the vacuum as physical entity, what is composed of? Is it a substratum such as rishon model? Etc.</p>	<p>Thanks so much for these so useful remarks and comments.</p> <p>This remarks and other related suggestions were taken into account when preparing the revision.</p> <p>I am also indebted for the Referee's comments related with foundations of the vacuum field theory paradigm. I agree completely that these aspects are more than worth of studying, yet the present aim of the review is much more modest and consists in demonstrating the importance of only two basic vacuum field theory concepts – The Feynman proper time and the Fock multi-time approaches, which make it possible really to understand the quantum physical nature both of magnetic Amper and electric Coulomb forces. Moreover, as a by-product, based on these concepts and the classical Abraham-Lorentz charged particle spherical model, we can state that the electron inertial mass is of completely electromagnetic origin. This and related topics were under review. Concerning much more general and distant aspects of the vacuum field theory problem which were kindly mentioned by the Referee, I am sure that they deserve a special professional attention within another review to be prepared by specialists to which this topic is one of main fields of expertize.</p>



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<u>Minor</u> REVISION comments	<ul style="list-style-type: none"> - some errors in citing the correct references in the body of paper should be removed. - it is advisable to find a good proofreader to check all the wordings, because it seems the author is not a native english speaker 	<p>Thanks for this important remark.</p> <p>The references were once more thoroughly checked, some of them were changed and some other were both replaced and added to the text.</p>
<u>Optional/General</u> comments	<ul style="list-style-type: none"> - The paper is very deep and interesting and it contains new results . It fills the missing gap of classical electrodynamics theory, that is to describe the vacuum structure. However, I would recommend to split the paper into 3-4 shorter papers which then submitted in sequential order. - the author also has to explain the reasonind advantages of his vacuum field theory over other vacuum models, including classical aether theories. - In its present form the paper is not recommended for publications. 	<p>As I have already written, the topic which were kindly remarked by the Referee, deserve a special professional attention within another professional review to be prepared by specialists to which this topic is one of main fields of expertize.</p> <p>Within this review the main points , on which we stressed, was both the transparency and effectiveness of the Feynman proper time and the Fock multi-time paradigms, which make it possible really to understand the quantum physical nature both of magnetic Amper and electric Coulomb forces.</p> <p>All other aspects which were pointed out by the Referee, need a more detailed and scrutinized work for the future specialists.</p>