



SDI Review Form 1.6

Journal Name:	<a href="#">Physical Science International Journal</a>
Manuscript Number:	Ms_PSIJ_45286
Title of the Manuscript:	Ad Hoc Error Correction vs. Removal of Error's root
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)
<b>Compulsory</b> REVISION comments	<p>This paper is based on a misapplication of the variational principle with respect to the electromagnetic field and its stress-energy tensor.</p> <p>The authors obtain the stress-energy-momentum tensor of the classical electromagnetic field using the variation of the EM Lagrangian with respect to the electromagnetic 4-potential.</p> <p>As it is well known, this procedure yields a form of the EM stress tensor that is not symmetric.</p> <p>However, the authors neglect the fact that the stress-energy-momentum tensor is specified only up to an arbitrary divergence-free term. It is the addition of this divergence-free term that the authors see as an "ad hoc error correction".</p> <p>But it is not. This can be seen most evidently by calculating the stress-energy tensor using the variation of the Maxwell Lagrangian with respect to the metric itself. This approach, described in §94 of the second volume of Landau and Lifshitz, yields the correct, symmetric form of the EM stress-energy tensor without any ad hoc terms.</p> <p>The suggested relationship of this non-existent error with the "hadronic structure" of the photon is pure nonsense. First of all, the issue of the stress-energy tensor is wholly in the realm of classical physics. Second, of course a high energy photon will include pair production, including hadronic pairs, which is standard behavior in quantum field theory. This behavior, contrary to the authors' suggestion, was never "inconsistent with the prevailing theory"; rather, it is a prediction of it.</p> <p>Nor is there anything ad hoc about the projection operators used in the definition of Weyl spinors, even if I ignore the authors' confusion regarding spinors vs. 4-velocities.</p> <p>As such, this paper represents badly flawed reasoning based on a false premise, and has no scientific value.</p>	<p>Four reviewers recommend the publication of my paper. By contrast, this reviewer denies it completely. In my opinion, his arguments are full of errors. In such a case, a good way aiming to clarify differences between scientific opinions is to publish detailed discussions of the relevant problems. Therefore, I suggest that this reviewer will write an appropriate paper where he explains his point of view. In this case, I kindly ask for the right to respond to his arguments. I'm quite sure that such a publication of differences between opinions will help readers to acquire a better understanding of the relevant problems.</p>
<b>Minor</b> REVISION comments		
<b>Optional/General</b> comments		

**PART 2:**

	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)
Are there ethical issues in this manuscript?	(If yes, Kindly please write down the ethical issues here in details)	