

[Review Form 3](#)

Book Name:	<a href="#">Current Research Progress in Physical Science</a>
Manuscript Number:	Ms_BPR_4040
Title of the Manuscript:	<b>An explanation and some experiments of Solving the neutron lifetime puzzle via non standard neutrino interactions</b>
Type of the Article	<b>Book chapter</b>

**PART 1: Comments**

	<b>Reviewer's comment</b>	<b>Author's Feedback</b> <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<b>Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.</b>	On average, the beam method measures a longer lifetime of free neutrons than the bottle method. This topic is very interesting from a fundamental research perspective and is therefore still the subject of current research. The main question is: is this discrepancy a new, previously unknown phenomenon or can a plausible explanation be found based on the generally accepted laws of physics.	
<b>Is the title of the article suitable? (If not please suggest an alternative title)</b>	The title suggests that the manuscript describes experiments that have been performed. However, the text is only about experimental suggestions. My title would therefore be: A contribution to the neutron lifetime puzzle with experimental suggestions.	
<b>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.</b>	In the abstract, the reader is confronted with the term "new physics" without being able to have any idea of what it means. There is no definition of the new physics and no transition between the new physics and the neutrino background mentioned afterwards in the abstract.	
<b>Is the manuscript scientifically, correct? Please write here.</b>	<p>Introduction: The basis for the author's argument is his article "U (1) Axial as a Force between Neutrinos", published in 2021. Because of the fundamental importance for this book chapter, it would be very helpful for the reader if the author would explain the essential aspects of his theory of a new neutrino interaction in more detail in his introduction, preferably with one or two figures. This would then explain the statements on page 1 "... charge +1 on an electron neutrino, and an interaction strength of ..." If not, the question arises as to why a neutral neutrino should be assigned a positive charge, whether it is a virtual or a real charge assignment. And how the interaction strength is justified. The following paragraphs would also gain clarity. Since this book chapter is about the lifetime of the neutron, a description of the practical measurements and the statistical evaluation methods in the introductory section would also be useful.</p> <p>Inverse Quantum Zeno Effect: The Quantum Zeno effect and the watchdog effect would be logically embedded with a revised introduction. In the current presentation, the reader has to work out the meaning of these two effects in context.</p> <p>The desire for more transparency also applies to the section "Neutrinophilic forces and our axial force". This is a reference to the author's contribution from 2021. In this case, too, the reader needs more detailed and concrete information about a possible neutrino wave and the named forces.</p> <p>In the section "Possible models of the neutron decay anomaly" it is not clear which models (plural) are meant. In addition, there is no justification for the introduction of the Debye length, which has its origins in plasma physics.</p> <p>In the "Experiments" section, I would like to see a brief, bullet-point summary of the proposed experiments in the following form: Experimental setup, material, proof, evaluation, ...</p> <p>In the "Conclusions" section, the claim that the new axial force solves the neutron puzzle should be justified in more detail. The reader has hardly read anything concrete about this force up to this point.</p>	

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	Furthermore, a discussion would be appropriate here about why, for example, the argument from the article "Exciting hint toward the solution of the neutron lifetime puzzle" cannot be correct.	
<b>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</b>	"Exciting hint toward the solution of the neutron lifetime puzzle", DOI: <a href="https://doi.org/10.1103/PhysRevD.110.073004">https://doi.org/10.1103/PhysRevD.110.073004</a>	
<b>Is the language/English quality of the article suitable for scholarly communications?</b>	The English of the article is understandable.	
<b>Optional/General</b> comments	In some places the author's wording is imprecise. His thoughts are not clearly expressed. He should read through his manuscript again carefully and rework his sentences, possibly turning one sentence into two or three.	

**PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (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>Are there ethical issues in this manuscript?</b>	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

**Reviewer Details:**

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