Review Form 3

Book Name:	Current Research Progress in Physical Science
Manuscript Number:	**Ms_BPR_4040**
Title of the Manuscript:	**An explanation and some experiments of Solving the neutron lifetime puzzle via non standard neutrino interactions**
Type of the Article	**Book chapter**

PART 1: Comments

	Reviewer's comment	**Author's Feedback** *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
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.	First of all, this manuscript includes numerous sentences that are awkwardly phrased, with errors in verb tense, preposition usage, and word choice. The authors should undergo professional editing to eliminate grammatical errors and enhance readability, before submitting it for publication. This manuscript is important to the scientific community as it addresses the long-standing neutron lifetime puzzle, offering an innovative explanation through non-standard neutrino interactions. It bridges experimental discrepancies between beam and magnetic bottle measurements by invoking the inverse quantum Zeno effect. Additionally, it provides clear experimental directions for future investigations. The findings have far-reaching implications, potentially contributing to a deeper understanding of fundamental interactions, cosmology, and perhaps the search for dark matter.	
Is the title of the article suitable? (If not please suggest an alternative title)	Please consider the grammar correction: "An Explanation and Experiments **for** Solving the Neutron Lifetime Puzzle via Non-Standard Neutrino Interactions"	
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.	The abstract of the article is not entirely comprehensive. Here are some suggestions: The neutron lifetime puzzle, characterized by a discrepancy between beam (~887 seconds) and magnetic bottle (~879 seconds) measurements, remains unsolved. This manuscript proposes an innovative explanation involving non-standard neutrino interactions and the inverse quantum Zeno effect. These interactions could reduce the neutron lifetime in magnetic bottle experiments to the observed value. To test this hypothesis, we suggest some experiments using isotopically varied materials and ultra-cold neutron sources. If validated, this work could deepen our understanding of fundamental forces, with significant implications for cosmology, dark matter, and particle physics.	
Is the manuscript scientifically, correct? Please write here.	Although the authors suggest some ways to solve the neutron lifetime puzzle, the article does not delve deeply into the calculations. Overall, this topic is addressed in a very superficial manner.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. -	The set of references provided is comprehensive and relatively recent, covering the main works related to the neutron lifetime problem.	
Is the language/English quality of the article suitable for scholarly communications?	Not at all.	
Optional/General comments		

Review Form 3

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)*	

Reviewer Details:

Name:	**Raphael Moreira De Albuquerque**
Department, University & Country	**Rio De Janeiro State University, Brazil**