

Review Form 3

Journal Name:	Journal of Advances in Mathematics and Computer Science
Manuscript Number:	Ms_JAMCS_128334
Title of the Manuscript:	Generalized stability of a general quintic functional equation
Type of the Article	Original Research Article

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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 guidelines for the Peer Review process, reviewers are requested to visit this link:

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PART 1: 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. A minimum of 3-4 sentences may be required for this part.	This manuscript provides a significant contribution to the field of functional equations by extending the understanding of the generalized stability of the general quintic functional equation. Its results offer a unifying framework that encompasses stability conditions for a broad class of functional equations, including quadratic, cubic, and quartic equations. The innovative use of mathematical rigor and clearer proofs compared to existing literature sets a benchmark for future research in stability theory. Furthermore, these findings have the potential to inspire new directions in applied mathematics, particularly in areas where such equations model real-world phenomena, enhancing the scientific community's capacity to solve complex stability problems.	
Is the title of the article suitable? (If not please suggest an alternative title)	Yes	
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 clearly defines the objective of investigating the generalized stability of the quintic functional equation. It mentions the novelty of generalizing results for related functional equations (e.g., Jensen, quadratic, cubic). However, the abstract does not highlight the specific methods or approaches used, such as the use of fixed-point techniques or laborious computations, which are integral to the study. The contribution of this paper compared to existing works, such as clearer proofs and broader applicability, is not emphasized. The abstract lacks mention of potential implications or applications of the results. For instance: The general quintic functional equation extends the framework of numerous classical functional equations, including Jensen, quadratic, cubic, and quartic equations, offering a unified perspective on their stability. This paper investigates the generalized stability of the quintic functional equation using advanced mathematical techniques, including fixed-point methods and rigorous computational analysis. By providing improved and concise proofs, this study enhances existing stability results and extends their applicability under broader conditions. These findings contribute to the theoretical foundations of functional equations, with potential implications for diverse areas in mathematics and its applications.	
Is the manuscript scientifically, correct? Please write here.	The manuscript appears to be scientifically correct. Suggestions: Since the proof involves extensive computations and summations, a secondary check on computational accuracy (if not already performed) would be advisable. While the results are theoretically robust, confirming their applicability to specific functional equations or numerical contexts would further validate their significance.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	Yes. The authors may include some application references for this work.	
Is the language/English quality of the article suitable for scholarly communications?	The language and English quality of the article are generally suitable for scholarly communication. Some sentences are overly long and complex, which could be simplified for clarity. The introduction could benefit from smoother transitions between sentences and ideas to make it more engaging. The article heavily relies on passive constructions. Replacing some instances with active voice may improve the overall readability.	
Optional/General comments	This manuscript makes a valuable contribution to the study of functional equations, particularly the generalized stability of the general quintic functional equation. The authors demonstrate a thorough understanding of the topic and extend existing results through rigorous mathematical analysis. The work is well-organized and provides significant improvements in clarity and generality compared to previous studies. However, minor adjustments to language, inclusion of additional recent references, and improved readability in certain sections could enhance its impact and accessibility. Overall, the manuscript has the potential to influence ongoing research in this field and stimulate further advancements in stability theory.	

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>	

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