

Review Form 3

Journal Name:	Journal of Advances in Mathematics and Computer Science
Manuscript Number:	Ms_JAMCS_126578
Title of the Manuscript:	ITERATIVE METHODS FOR THE SOLUTION OF HESTON EQUATION WITH MAMADU-NJOSEH POLYNOMIALS
Type of the Article	Research article

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PART 1: Review Comments

Compulsory REVISION 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. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.	A significant contribution to the field of quantitative finance and applied mathematics. By introducing iterative methods for solving the Heston equation, it enhances the efficiency and accuracy of option pricing models, which are crucial for financial risk management. Mamadu-Njoseh polynomials approach to improving convergence rates and computational feasibility.	
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.	No, Rewrite the abstract to effectively reflect the manuscript and create more meaningful sentences.	
Are subsections and structure of the manuscript appropriate?	No, Sections 3 and 4 have the same title: He's Homotopy Perturbation Method (HPM).	
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.	The use of Mamadu-Njoseh polynomials is grounded in established polynomial theory, ensuring that the approach is both theoretically sound and applicable to the Heston equation. The choice of the Heston equation—widely used in financial mathematics for modeling stochastic volatility—is relevant and provides a well-defined problem space. The application of iterative methods suggests a deep understanding of the computational challenges associated with this partial differential equation and a clear intent to optimize both accuracy and efficiency.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	No, Include more recent articles (He/She used references up to 2017)	
<u>Minor</u> REVISION comments Is the language/English quality of the article suitable for scholarly communications?	Yes	
<u>Optional/General</u> comments	The author compares two existing methods, the Modified VIM and the Modified HPM, using the same HSPDE. The introduction is too brief. Please add more recent literature to provide a comprehensive overview. The literature review could have been more effective and in detail. Check this equation $\beta(t, S(t), V(t)) = \sigma\sqrt{V(t)}$, β missing. Please use the same symbols and notations consistently throughout the entire manuscript.	

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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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