

Journal Name:	<a href="#">Asian Research Journal of Current Science</a>
Manuscript Number:	Ms_ARJOCS_1805
Title of the Manuscript:	STABILITY ANALYSIS OF EXPLICIT FINITE DIFFERENCE METHODS FOR NEUTRAL STOCHASTIC DIFFERENTIAL EQUATIONS WITH MULTIPLICATIVE NOISE
Type of the Article	

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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.	One of the he most powerful and most general method for constructing approximate solutions of hyperbolic partial differential equations with prescribed initial values is the convergence condition by Courant–Friedrichs–Lewy. The other is the Von Neumann Stability Analysis. The manuscript studies these topics and the methodology for the numerical solutions and stability analysis of neutral stochastic differential equations.	Thanks and Noted
Is the title of the article suitable? (If not please suggest an alternative title)	Yes	Thanks and Noted

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.	<p>The abstract is too long and detailed. It could be reduced considerably: By example the paragraphs:</p> <p>-“Numerical methods ND FM is a mature technique that has already found applications for solving PDEs in heat conduction, fluid dynamics, and wave propagation, among others.”</p> <p>and</p> <p>-“The sample comparative investigations demonstrate that incorrect choice of parameters leads to numerical instabilities, indicating the need for individual stability criteria for NSDEs. Moreover, the presented work pays attention to the impact of stochastic integrators, such as Itô and Stratonovich ones, on stability and offers an understanding of their strengths and weaknesses. Numerical simulations unmask how Discretization options affect EFDM schemes' stability and the available stochastic integrators.”</p> <p>can be moved to the introduction.</p>	Thanks and the abstract is reduced
Is the manuscript scientifically, correct? Please write here.	Yes, the results are technically sound.	Thanks and Noted
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	I suggest including some reference, for example: B. Gustafsson. High Order Difference Methods for Time Dependent PDE. Number 38 in Springer series in computational mathematics. Springer, Berlin, 2008.	Thanks and Noted
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<u>Optional/General</u> comments	Some sentences have not been completed correctly, the wording needs to be revised, by example: “The analysis of how discretization parameters (time step size and spatial grid resolution) influence the stability properties of explicit finite difference schemes for neutral stochastic equations”.	

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)	