

Review Form 1.7

Journal Name:	Current Journal of Applied Science and Technology
Manuscript Number:	Ms_CJAST_119700
Title of the Manuscript:	A scientific computing analysis of financial Black-Scholes and Monte Carlo differential equation: An American option
Type of the Article	It is on the development of numerical schemes for solving American and European options

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PART 1: Review Comments

	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)
<p><u>Compulsory</u> REVISION comments</p> <ol style="list-style-type: none"> Is the manuscript important for scientific community? (Please write few sentences on this manuscript) Is the title of the article suitable? (If not please suggest an alternative title) Is the abstract of the article comprehensive? Are subsections and structure of the manuscript appropriate? Do you think the manuscript is scientifically correct? Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p>It is dwelling on a topic that has extensively researched on with respect of options pricing.</p> <p>No, from the numerical experiments, which is titled Example 2, do not look at American options as stated in the title. What does scientific computing mean? Also, is there a non-financial Black-Scholes. This is more like of words with no real meaning.</p> <p>No. There is mention of limits of the Black-Scholes pde without detail on how and why the Monte-Carlo method performs better. The following statement is false.. Our analysis reveals that while the BlackScholes model provides a useful approximation, Monte Carlo simulations deliver more accurate and flexible results for American options, especially in scenarios with significant volatility and early exercise potential. In addition, how was the following statement in the abstract achieved within the article....Finite difference methods for solving the Black-Scholes partial differential equations and variance reduction techniques for enhancing the efficiency of Monte Carlo simulations are adopted</p> <p>Yes.</p> <p>No, for example there is mention of finite difference schemes in the abstract which are not there in the text.</p> <p>Yes.</p> <p>Particularly, there is a need to demonstrate how American options are priced using Monte-Carlo methods and if the method they present has any new applications or insights. Also, what is mentioned in the abstract should be what appears in the text, for example, mentioning the use of finite differences in combination with Monte Carlo methods and not showing us how and where they are used inside the article. This is in fact misleading on the part of the authors. Also, when dealing with numerical schemes there is a need to carry out error analysis both theoretically and numerically.</p>	
<p><u>Minor</u> REVISION comments</p> <ol style="list-style-type: none"> Is language/English quality of the article suitable for scholarly communications? 	<p>Yes</p>	
<p><u>Optional/General</u> comments</p>		

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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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