

Review Form 1.7

Journal Name:	Asian Research Journal of Mathematics
Manuscript Number:	Ms_ARJOM_98517
Title of the Manuscript:	A Numerical Approximation On Black-Scholes Equation of Option Pricing
Type of the Article	

General guideline for Peer Review process:

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

(<https://www.journalarjom.com/index.php/ARJOM/editorial-policy>)

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>Compulsory REVISION comments</p> <p>1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript)</p> <p>2. Is the title of the article suitable? (If not please suggest an alternative title)</p> <p>3. Is the abstract of the article comprehensive?</p> <p>4. Are subsections and structure of the manuscript appropriate?</p> <p>5. Do you think the manuscript is scientifically correct?</p> <p>6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</p> <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p>1-Yes, In this paper, authors have investigated the notion of European option and solved the Black-Scholes closed form and modified Black-Scholes by using Crank-Nicolson finite difference method. The Call and Put option prices were obtained by partial differential equations were approximated and compared by the closed form prices of Black-Scholes formula. They have shown their results by plotting solutions and comparisons of other parameters.</p> <p>2-Yes.</p> <p>3-Yes.</p> <p>4-Can be improved.</p> <p>5-Yes.</p> <p>6- The authors should cite to previous research in this filed or compare their methods with them i.e.</p> <p>1- Fadugba SE, Edeki SO. A new approach for the solution of the Black-Scholes equation with barrier option constraints. InJournal of Physics: Conference Series 2021 (Vol. 1734, No. 1, p. 012052). IOP Publishing.</p> <p>2- El-Nabulsi, R.A. and Golmankhaneh, A.K., 2021. Generalized heat diffusion equations with variable coefficients and their fractalization from the Black-Scholes equation. Communications in Theoretical Physics, 73(5), p.055002.</p> <p>3- Anwar MN, Andallah LS. A study on numerical solution of Black-Scholes model. Journal of Mathematical Finance. 2018 Mar 29;8(2):372-81.</p> <p>4- Company, R., Navarro, E., Pintos, J.R. and Ponsoda, E., 2008. Numerical solution of linear and nonlinear Black-Scholes option pricing equations. Computers & Mathematics with Applications, 56(3), pp.813-821.</p> <p>5- Dura, G. and Mosneagu, A.M., 2010. Numerical approximation of Black-Scholes equation. Annals of the Alexandru Ioan Cuza University-Mathematics, 56(1), pp.39-64.</p>	
<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>	It is OK!	
Optional/General comments	I recommend the paper for publication after revision.	

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)	

Review Form 1.7

Reviewer Details:

Name:	Alireza Khalili Golmankhaneh
Department, University & Country	Islamic Azad University of Urmia, Iran