



SDI Review Form 1.6

Journal Name:	British Journal of Mathematics & Computer Science
Manuscript Number:	2014_BJMCS_13176
Title of the Manuscript:	On Stochastic Volatility in the Valuation of European Options
Type of the Article	Original Research 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.

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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)
Compulsory REVISION comments	The authors tried to use the benchmark option and an regular option to derive the closed-form option pricing formula as described in Heston (1993). However, there are some missing definitions and links: 1. What's the definition of benchmark option; 2. When you chose an independent function $L(t,S,Y)$ and set the left side of your equation (15) equal to the negative $L(t,S,Y)$, what's the reason behind it? There are also some other issues: 3. Equation (9) is not completely right. 4. What's the source of equation (14)? 5. Check equation (26). 6. Equation (27) misses b_2, and check b_1. 7. Equation (31) and (32) don't include $C(T-t, \phi)$. 8. Equation (33) and (34) need define τ. 9. Equation (36), what's the π asterisk? 10. What's the purpose of introducing those Greeks, i.e. equation (37)-(41)? 11. Check equation (42), which is either incomplete or has extra minus sign? 12. What's the purpose of demonstrating the market growth rate, which is irrelevant to this paper? 13. Need more description of your data, such as what's S/NO? 14. If T is the days of trading, and $t=n/T$, should t be the reciprocal of days? 15. The paper mentions several times that equity returns and implied volatility are negatively	1. Benchmark Option here means a standard by which financial derivative can be measured according to specified standards in order to compare it with and improve one's own contingent claim 2. The RHS Of (15) Is Equal To $-L(T,S,Y)$ 3. I Have Corrected Equation (9) 4. Since The Portfolio Is Riskless Then It Must Earn A Return Similar To Other Short Term Riskless Securities Such As Bank Account. Therefore, We Have Equation (14) See Ref [3] 5. Checked 6. B_2 Is Included Now. 7. $C=C(T-t, \phi)$, $D = D(T-t, \phi)$ 8. $\tau = T-t$ 9. π Asterisk Here Means 3.142 or $22/7$ 10. Greeks are introduced to describe the behavioural of an option position or a portfolio of options. 11. Corrected 12. To discuss how market growth rate of the Stock Share can be Calculated. 13. S/NO Means Serial Number. 14. $T = 61$ Days, Here We Define $T=N/T$. 15. Ref [3] 16. I have modified empirical examples and all the parameters of Heston model are now included.



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	correlated, however, no reference or source was given. 16. This paper was the valuation of European option. So it would be expected to demonstrate the option pricing with the derived closed-form of Heston model. It requires the estimation of all parameters in the Heston model. Therefore, the parameter estimation section and empirical example section seem not very relevant to prior sections.	
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		