



**SDI Review Form 1.6**

Journal Name:	<a href="#">Physical Science International Journal</a>
Manuscript Number:	Ms_PSIJ_50356
Title of the Manuscript:	Numerical Solution of Two Dimensional Laplace's Equation on a Regular Domain Using Chebyshev Differentiation Matrices
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. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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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)
<b>Compulsory</b> REVISION comments See below...	<p>Abstract: What is the standard approach? Look at your introduction. Let the author understand how important this effort is.</p> <p>You claim there is a comparison. With what differences does your method provide and is there an advantage in this approach compared to accuracy and speed?</p> <p>Discussion. It is not clear the differences in eq 2 and 3 except that an additional expression is involved that produces a different coordinate system? This is strange. I would provide some explanation. Is there a different value involved?</p> <p>Does this approach simply use a set of solutions, as in cosine terms to find the final value in some sort of series term?</p> <p>Some explanation is required and the implication is to use some intuitive solution to involve the final result. Can this be</p> <p>Used with cylindrical and spherical coordinate systems as well? Moreover, accuracy will depend upon 'N'. Can that be</p> <p>Quantified based upon the interval?</p> <p>You do not specify what is inside of eq 6. Where does the <math>1-x^2</math> term come from and what is 'T'?</p> <p>You need to clarify what is in eq 8 as well.</p> <p>Eq 10 and 11 are specifying Poisson's equation and not Laplace's equation. This should have been specified in the abstract.</p> <p>Eq 12 is unintelligible. I cannot make out if there are periods or large numbers. You need to tell the reader</p> <p>what is in the x and y coordinate of this table.</p> <p>What is kron? This looks like a function.</p> <p>Is fig 2 related to fig 3? What is the solution 1.2? If fig 3 is from eq 10 and 11, the results are impressive.</p> <p>Is fig 3 a minus sign of results from fig 4 and 5? The results for all three are extremely different. What is the final answer?</p> <p>Let me suggest you do a problem with all three methods that has an analytical solution. The difference is huge.</p> <p>I have to mention that the results are scary and it tells me all three methods do not provide an adequate answer. You should use</p> <p>Coordinates in the figures with the same scales. The author needs to perform considerably more efforts... I would suggest</p> <p>looking into several different problems... Moreover, give some details about the type of finite differencing. Is the trace three</p> <p>points or eight points? The number of points increases the accuracy.</p>	<p>The manuscript has been modified</p>



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<b>Minor</b> REVISION comments		
<b>Optional/General</b> comments		

**PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> <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>
<b>Are there ethical issues in this manuscript?</b>	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	