SDI Review Form 1.6

Journal Name:	**Physical Science International Journal**
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)*
Compulsory REVISION comments See below…	Abstract: What is the standard approach? Look at your introduction. Let the author understand how important this effort is. 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? 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? Does this approach simply use a set of solutions, as in cosine terms to find the final value in some sort of series term? Some explanation is required and the implication is to use some intuitive solution to involve the final result. Can this be Used with cylindrical and spherical coordinate systems as well? Moreover, accuracy will depend upon 'N'. Can that be Quantified based upon the interval? You do not specify what is inside of eq 6. Where does the $1-x^2$ term come from and what is 'T'? You need to clarify what is in eq 8 as well. Eq 10 and 11 are specifying Poisson's equation and not Laplace's equation. This should have been specified in the abstract. Eq 12 is unintelligible. I cannot make out if there are periods or large numbers. You need to tell the reader what is in the x and y coordinate of this table. What is kron? This looks like a function. 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. 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? Let me suggest you do a problem with all three methods that has an analytical solution. The difference is huge. 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 Coordinates in the figures with the same scales. The author needs to perform considerably more efforts… I would suggest looking into several different problems… Moreover, give some details about the type of finite differencing. Is the trace three points or eight points? The number of points increases the accuracy.	

Minor REVISION comments		
Optional/General 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)*
Are there ethical issues in this manuscript?	*(If yes, Kindly please write down the ethical issues here in details)*	

Reviewer Details:

Name:	*P. A. Murad*
Department, University & Country	*USA*