

Review Form 1.6

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| Journal Name: | Journal of Advances in Mathematics and Computer Science |
| Manuscript Number: | Ms_JAMCS_79337 |
| Title of the Manuscript: | A NUMERICAL INVESTIGATION OF PRESSURE-VELOCITY COUPLING SCHEMES FOR BOUYANCY DRIVEN FLOW IN A DIFFERENTIALLY HEATED CAVITY |
| 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:

(<https://www.journaljamcs.com/index.php/JAMCS/editorial-policy>)

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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) |
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| Compulsory REVISION comments | <p>1.The author has to bring the gap in the literature and clearly mention how his work is going to address the gap. 2. The objective of the work can be made more explicit. 3. The graph of the results having four algorithms does not Show the results of Zeng et al.</p> <p style="text-align: center;">The study deals with the Numerical analysis of fa laminar buoyancy driven flow in a rectangular enclosure differently heated on two horizontal opposite sides with two insulating baffles attached to the vertical walls full of air are solved iteratively using finite volume method and solutions are presented for Rayleigh numbers of 103, 104, and 105 by the SIMPLE, SIMPLER, and SIMPLEC algorithm. Results predicted by using the SIMPLEC algorithm are found to effectively compute the velocity of fluid flow both low and higher Rayleigh numbers irrespective of the grid size. The results are consistent with M. Zeng et al., (2002) study on the convergence comparison of four algorithm namely; the SIMPLE, SIMPLER, SIMPLEC and SIMPLEX algorithm.</p> | |
| Minor REVISION comments | <p>Minor REVISION comments</p> <p>1. The energy term is not defined in the nomenclature 2. The Non Dimensional Parameters can be defined 3.</p> | |
| Optional/General comments | <p>Optional/General comments</p> <p>1. The quantum of work as far as the methodology is concerned is inline with Theme of the journal but the results quantum is not sufficient enough</p> | |

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) |
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| Are there ethical issues in this manuscript? | <i>(If yes, Kindly please write down the ethical issues here in details)</i> | |

Reviewer Details:

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