

Review of: "Non-dimensionalization of the Compressible Navier-Stokes Equation by Pressure Wavelength and Period revealing its Singularity"

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Potential competing interests: No potential competing interests to declare.

1. The Introduction is weak, at the end of the introduction, please expound on the new aspect of your work.

2. Rephrase the last paragraph of introduction with novelty and objectives clear and concise.

One fact that is common in almost all the quality publications within our field is the fact that they present the analysis of results and discussion of results separately. Meanwhile, the best practice is to build the discussion of results on the results that have been analysed. This will guide the authors to present the best and accurate results capable to announce the title and lead to conclusive facts in the next section of the manuscript. But, permit me to ask you a question. Do you know that the analysis of results is quite different from the discussion of results? Comment: Divide the third section into two subsections. Ensure that the revised version of the manuscript contains

3. Analysis of Results

4. Discussion of Results

5. Elaboration of the method used.

6. Validation of the method by incorporating the regression analysis.

Discussions should be elaborated for each physical parameter with physical meaning.

The literature review must give a critical assessment of the existing state and explicitly indicate the gaps that the current work tries to fill. Gaps can be filled with few works such as

1. International Communications in Heat and Mass Transfer 126 (2021) 105436. Fractional Analysis of MHD Boundary Layer Flow over a Stretching Sheet in Porous Medium: A New Stochastic Method, Journal of Function Spaces, Volume 2021, Article ID 5844741, 19 pages.

3. Falkner-Skan Equation with Heat Transfer: A New Stochastic Numerical Approach, Mathematical Problems in Engineering Volume 2021, Article ID 3921481, 17 pages.

4. A Levenberg-Marquardt backpropagation method for unsteady squeezing flow of heat and mass transfer behavior between parallel plates, Advances in Mechanical Engineering, Advances in Mechanical Engineering, 2021, Vol. 13(10) 1-15.

5. MHD Boundary Layer Flow over a Stretching Sheet: A New Stochastic Method, Mathematical Problems in Engineering, Volume 2021, Article ID 9924593, 26 pages.

6. Levenberg-Marquardt Backpropagation for Numerical Treatment of Micropolar Flow in a Porous Channel with Mass Injection, Complexity, Volume 2021, Article ID 5337589, 12 pages.

7. Neuro-Computing for Hall Current and MHD Effects on the Flow of Micro-Polar Nano-Fluid Between Two Parallel Rotating Plates, *Arabian Journal for Science and Engineering*, <https://doi.org/10.1007/s13369-022-06925-z>.
8. Intelligent Computing of Levenberg-Marquard Technique Backpropagation Neural Networks for Numerical Treatment of Squeezing Nanofluid Flow between Two Circular Plates, *Mathematical Problems in Engineering* Volume 2022, Article ID 9451091, 11 pages.
9. Heat Transfer Impacts on Maxwell Nanofluid Flow over a Vertical Moving Surface with MHD Using Stochastic Numerical Technique via Artificial Neural Networks. *Coatings* 2021, 11, 1483. <https://doi.org/10.3390/coatings11121483>.
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19. Analytical Solution of Heat and Unsteady Flow of Second Order Fluid Past on a Porous, moving and Oscillating Vertical Belt. *Heat transfer Research*. 50 (15) 1105-1126, (2019).
20. MHD thin film Oldroyd-B fluid with heat and viscous dissipation over oscillating vertical belts. *Heat Transfer Research*. *Heat Transfer Research* 50(8):1-11 (2019).
21. Three dimensional MHD nanofluid thin film flow with the heat and mass transfer over an inclined porous rotating disk. *Advances in Mechanical Engineering*, 11 (8) 1-11, 2019.
22. Three Dimensional MHD Rotating Flow of Viscoelastic Nanofluid in Porous Medium Between Parallel Plates. DOI: 10.1615/JPorMedia.2020027478 pages 715-729.
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Future direction of the work should be inserted at the end of the summary.

References are not arranged as per journal standards. Please follow the journal standard reference style.

The paper is recommended for publication after the above mention MAJOR REVISIONS