

# Review of: "Hamiltonian Chaos and the Fractal Topology of Spacetime (Part 2)"

Dr. Muhammad Tanveer<sup>1</sup>

<sup>1</sup> University of Agriculture Faisalabad

Potential competing interests: No potential competing interests to declare.

## Review report

Major revision is needed.

1. The paper is well written. Presented statements are correctly confirmed. Still, in order to get a more general view, it would be interesting to expand the problem by taking some example of Bifurcation. Maybe at least mention this approach and leave the open space for the future study.
2. The main contribution of this paper should be added.
3. The comparisons of “ $y$ ” and “ $\frac{dy}{dt}$ ” should be presented like the authors presented in numerical simulations sections of following papers: (a.) M. Tanveer, W. Nazeer, K. Gdawiec, On the Mandelbrot set of  $z^p + \log c^t$  via the Mann and Picard–Mann iterations, *Mathematics and Computers in Simulation*, Volume 209, 2023, Pages 184-204, <https://doi.org/10.1016/j.matcom.2023.02.012>. (b) Tassaddiq, A.; Tanveer, M.; Israr, K.; Arshad, M.; Shehzad, K.; Srivastava, R. Multicorn Sets of  $z^k + c^m$  via S-Iteration with  $h$ -Convexity. *Fractal Fract.* **2023**, *7*, 486. <https://doi.org/10.3390/fractalfract7060486>.
4. Provide real life applications of the derived result.
5. Authors should explain what the purpose of figures.
6. Authors are recommended a detailed check of the English and typographical errors which are not big but are frequent.
7. Please give a detailed conclusion. If it is possible, please give more numerical results like papers mentioned in comment (3).
8. What specific aspects of the dynamical behavior of the proposed research?
9. Are there any practical applications or future research directions that could stem from this work?

