

Review of: "On a New Two-Point Taylor Expansion With Applications"

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Potential competing interests: No potential competing interests to declare.

The author proposed a new two-point Taylor series expansion. He proved the unique representation of a function in terms of the new expansion. The coefficients are calculated as recursive relations in a general form. The two-point Taylor expansion is applied to express two different functions, one of which has a finite interval of convergence and the other an infinite interval of convergence. The author tested the new expansion on two interesting functions and used it to solve an initial value problem. A comparison with a single-point Taylor series is made to illustrate the efficiency of the proposed expansion. After extensive reading of the manuscript, I offer the authors the following comments and recommendations:

- 1. The researcher did not present the advantages of the proposed two-point Taylor expansion over the previous classical two-point Taylor expansion, given in (24), and the motives for the new proposal.
- 2. The author made a comparison between the proposed expansion and the single-point Taylor expansion at several points. Unfortunately, no comparison was made between the old classical two-point Taylor expansion and the new two-point Taylor expansion so that the new expansion would have justification for its proposal.
- 3. The introduction lacks clarity in explaining the novelty of the subject matter.
- 4. The fonts should be presented to experienced people to produce them without linguistic or punctuation errors.

I think the work is good if the above recommendations are considered. Therefore, recommending that the paper be accepted for publication depends on providing a convincing justification for what was proposed.

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