

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 study and its new version are undoubtedly intriguing; nonetheless, there exist areas for improvement.

Primarily, achieving greater fluency in English would facilitate reaching a wider and more diverse audience, necessitating the rectification of various typographical errors and the refinement of grammatical structures in select sentences.

Moreover, it is noteworthy to observe a discernible asymmetry among the coefficients in the new version as compared to those in the standard version. It would be worthwhile to investigate whether this disparity bears significant consequences and, if so, elucidate its impact on approximation error.

From the experimental findings presented, it seems that the method's applicability is predominantly confined to linear ODEs. Could this methodology be extended to encompass generic ODEs, including systems of equations? If affirmative, incorporation of these cases into the study would be advantageous; alternatively, clarification regarding the method's limitations is warranted.

Furthermore, suggestions for notation refinement are in order:

- Equations (4) and (5) would benefit from substituting " $\text{Int}(\frac{m}{2})$ " with " $\lfloor \frac{m}{2} \rfloor$ " and similar adjustments.
- Employing distinct nomenclature for coefficients between the standard and the new version would enhance clarity.
- Adoption of a mathematical writing style akin to the LaTeX environment is recommended.

In summary, addressing these aspects would undoubtedly augment the study's coherence and academic rigor.