

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

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Potential competing interests: No potential competing interests to declare.

Dear Author,

I hope this letter finds you well. I have had the opportunity to review your paper entitled "On a New Two Point Taylor Expansion With Applications," and I would like to provide you with feedback on your work.

Your paper introduces a novel approach to the two-point Taylor series expansion, which is a departure from the classical definition. The recursive calculation of coefficients in a general form represents an innovative contribution to the field of Taylor series expansions. Your application of the two-point Taylor expansion to express functions with both finite and infinite intervals of convergence adds depth to the analysis and demonstrates the versatility of your proposed method.

The derivation of convergence conditions and the comparison of results with single-point Taylor expansions and previously reported two-point Taylor expansions offer valuable insights into the performance and applicability of your new expansion method. The identification of convergence intervals, including cases where two separate intervals exist, enriches the understanding of series convergence behavior.

Furthermore, your comparison of the new two-point expansion with classical two-point expansion methods, as well as its application to the solution of a variable coefficient differential equation, underscores the practical relevance and potential utility of your proposed approach.

Overall, I commend you for your rigorous investigation and clear presentation of your findings. Your paper significantly contributes to the advancement of knowledge in the field of Taylor series expansions and their applications.

Thank you for considering my feedback. I believe that your paper has the potential to make a valuable contribution to the scholarly literature in this area.

Please feel free to reach out if you have any questions or if there are any additional details you would like to discuss.

Warm regards,

Amin