

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

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Potential competing interests: No potential competing interests to declare.

This article suggests the development, application, and comparative analysis of a new approach to two-point Taylor series expansion, emphasizing its potential advantages and demonstrating its effectiveness through theoretical and practical examples. The results of the new two-point Taylor expansion are compared with those of the classical two-point Taylor expansion. It is noted that the two approaches yield identical results for the problems considered. It is found that for a finite radius of convergence (the maximum distance from the center point at which the Taylor series approximation is valid), the two-point Taylor expansions can have either a single convergence interval or two separate convergence intervals. This finding highlights the flexibility and potential advantages of the new approach.