Review of: "New Computational Methods Using Seventh Derivative Type for the Solution of First Order Initial Value Problems"

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Potential competing interests: No potential competing interests to declare.

Due to the high quality of the present manuscript and its interesting new results, this work is recommended for publication in your esteemed journal, with the following advice for improving the content as a major revision:

1. At the end of the introduction, the motivation and advantages of the method should be clearly mentioned.
2. The word “We” is used several times inside the manuscript. Should be amended.
3. In section 2 (Derivation), the definition with its reference for the Linear Multistep Method (LMM) should be highlighted, which will be convenient for the reader, as I cannot see it before the derivation.
4. In the abstract, it is mentioned that “a class of implicit block methods of a seventh derivative type are examined.” It will be very clear if you can draw a block figure for the readers to understand how many future and previous points you have used to derive and .
5. In section 2, you have already used the full form of Linear Multistep Method (LMM), so instead of writing it, use its acronym.
6. In section 6 (Application Problem), it will be good if you plot the time to observe how much increment occurs at different points of . Because the time is not clearly visible in the table,
7. Quite recent articles have been published on the BDF along with its convergence properties. They need to be cited in this work to attract more readers, and it should point out the difference between the present article and those previously published, such as,

i. H. Soomro et al., "Variable step block hybrid method for stiff chemical kinetics problems," Applied Sciences, vol. 12, no. 9, p. 4484, 2022.
ii. Soomro, H., Daud, H., and Zainuddin, N., 2021, July. Convergence of the 3-point block backward differentiation formulas with off-step point for stiff ODEs in Journal of Physics: Conference Series (Vol. 1943, No. 1, p. 012137). IOP Publishing.

1. English language must be carefully improved.
2. A full stop or a comma should be given in the paper. Insert a comma or full stop after every equation.
3. There are some grammatical misprints in the manuscript which should be corrected.

$$x$$

$$y_{n+2}$$

$$y_{n+1}$$