

Review of: "A Novel Computational Approach for Solving Fully Implicit Singular Systems of Ordinary Differential Equations"

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Potential competing interests: No potential competing interests to declare.

The manuscript under review presents a novel computational approach to solve fully implicit singular nonlinear systems of ordinary differential equations. The proposed method is based on the idea of applying the DTM directly to these systems while exploiting an important property of Adomain polynomials.

Numerical results show that the present hybrid method provides the exact solution of implicit differential systems in a convergent power series form. The author should answer the following questions and comments before further consideration of publication.

1. It is suggested that the author provide references to where the considered implicit singular nonlinear differential equations were proposed and specify their applications.
2. The author is advised to provide numerical validity of the present method in comparison to other existing methods.
3. Are the considered problems have unique solutions? At least some references are necessary to show the unique solvability of the addressed problems.
4. The author should must present graphical representation and error estimation with exact solutions to validate the results.
5. Convergence analysis of the proposed method or the respective references should be reported in the manuscript.
6. Although the author gave a relatively comprehensive review in this field, some recent progress, including but not limited to the following, is suggested to be mentioned.

<https://doi.org/10.1016/j.apnum.2020.07.001>.

<https://doi.org/10.1002/mma.9178>

<https://doi.org/10.1002/mma.8335>

<https://doi.org/10.1515/nleng-2022-0267>