Review of: "Bridging Classical and Computational Physics: Integrating Unsolvable Differential Equations into Undergraduate Education"

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Potential competing interests: No potential competing interests to declare.

In this article entitled "Bridging classical and computational physics: integrating unsolvable differential equations into undergraduate education," the author proposes a study that addresses the significant gap in undergraduate physics curricula concerning unsolvable differential equations. The study presents an accessible method to handle the equations of physics systems, demonstrated through nine examples. The proposal suggests a foundational shift in physics education, enhancing conceptual understanding by implementing computational calculus.

I consider that the article is not of sufficient scientific importance to be published for the following reasons that are listed below:

The introduction consists of an exposition of 3 points that could have been extracted from any textbook of general physics, and from there, it is limited to exposing an example, such as the free fall of a body, extracted and referenced by the author from Wikipedia. It is to be expected that this whole section will be rewritten, explaining the state of the art and giving adequate references, as well as explaining in depth the method proposed in the manuscript, not simply being the use of Matlab in widely known physical situations.

The rest of the article deals with the exposition of 9 more examples, in different physical situations, obtaining the solution by means of Matlab, which is nothing new and, in any case, with 1 or maybe 2 examples would be enough to understand what is intended to be exposed.

At the end of the article, there are a number of references that have caught my attention because of the small number of them, in addition to the fact that more than 20% are self-citations. The most remarkable, however, is the citation of Wikipedia in the introduction.

I would ask the author to reconsider the article he intends to publish in a scientific journal such as this one. I do not detract from the manuscript, but I believe that the destination of such a paper should be what the author has already achieved, which is to have an educational website (Reference 5) on numerical methods in various, and widely known, classical physics situations taught in textbooks.