

Review of: "Analysis of the Spread of Covid-19 via Atangana-Baleanu Fractional Derivatives"

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Potential competing interests: No potential competing interests to declare.

1. For clarity and precision, please pay careful attention to the use of English and the mathematical expressions and equations in your article.
2. The abstract can be more informative. What is to be studied, the methodology, and the results are the main ingredients of the abstract.
3. Mathematical questions
 - a. It is recommended that the authors state the reason(s), if any, for the use of the Atangana-Baleanu fractional derivative operator, which is known for its non-singular kernel.
 - b. I have some concerns about Lemma 1. You cited this lemma from reference [3], but I could not find it in this reference.
 - c. Pay careful attention to the equations and symbols in your article.
 - d. Figures captions and Figure discussions need to be revised. For example, I would infer from Figure 7 that as t increases, the death rate is going to infinity.
 - e. The literature and the references can be extended to encompass the findings of most recent research on fractional models of COVID-19. Include articles that address various models with different fractional derivative operators and derivative solution algorithms. Consider, for example:
 - DOI: [10.1186/s13662-021-03265-4](https://doi.org/10.1186/s13662-021-03265-4)
 - DOI: [10.3390/sym15020380](https://doi.org/10.3390/sym15020380)
 - DOI: [10.1007/s44196-022-00133-1](https://doi.org/10.1007/s44196-022-00133-1)
 - DOI: [10.1016/j.chaos.2020.110256](https://doi.org/10.1016/j.chaos.2020.110256)