Review of: "A Mathematical Characterisation of COVID-19 in Mauritius"

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Potential competing interests: No potential competing interests to declare.

The abstract was well constructed, especially the aim and objective are specified along with the methodology. Some preliminary results (in terms of numerics) in the abstract are needed. The author mentioned, ‘An intriguing observation is made when the growth rate and the ceiling value of the mathematical models obtained for different countries are compared.’, however, if the author specifies which countries have a high growth rate in the abstract, then it may be more engaging to readers from other countries. The introduction is very engaging and written in a very interesting way. Some statements need citations, such as ‘An S-curve fit while being useful in analysing a pandemic is however not a tool that can usually be used by the authorities to control the propagation of a virus at the beginning of a pandemic.’ It is better to mention what other tools were useful at the beginning of the pandemic so that authorities can prepare for future waves. The methodology section is presented in the most scientific form. Please explain the 2-norm residual and clarify why this value is too high in the second wave. In methodology, author mentioned that ‘This figure is clearly quite high and can be explained by the fact that data were not reported on a daily basis’, please add figure number in this sentence and explain what is high in this figure. In some other parts also figure number is missing, please kindly check. Please add discussion section if possible and cite few recent articles based on logistic growth models. The pro’s and con’s of this logistic model compared to well defined SIR models can be added. Please remove citation of figure in conclusion section.