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.

The article entitled "Analysis of Covid-19 propagation by fractional Atangana-Baleanu derivatives" proposes a classical model for the transmission of COVID-19 by partitioning the population into seven classes (compartments), and proposing dynamics between them. The model is initially proposed by coupled ordinary differential equations and later proposed with fractional order equations of the Atangana-Baleanu type. It studies a single equilibrium point (the most trivial equilibrium point, with all populations zero), which is already highly criticisable from an epidemiological point of view. He shows that the solutions are positive and bounded in the space where they make sense and performs some simulations.

The article presents many errors from the mathematical point of view as of presentation, I think the authors should make a revision of its writing, the study of the disease-free equilibrium point and not the trivial one, revise writing errors, for example, suddenly change the argument f(x), it should be f(X), some vectors should be transposed to make sense of what they write, the graphs should be improved because their legends are very small and are not legible, and and many others more. In general they should do a thorough revision before publishing.