

Review of: "Evolution of new variants of SARS-CoV-2 during the pandemic: mutation-limited or selection-limited?"

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Potential competing interests: No potential competing interests to declare.

The manuscript is clearly written, with the simulation's caveats being indicated. The aim was to study SARS-CoV-2 evolution using epidemiological data and the conclusion is that the invasion of new variants is limited by selection rather than mutation. This work is relevant and can open new avenues for reanalyzing other pandemic viruses.

I will point out only one aspect related to the mutation rate that I find would be interesting to cover. It is known that viral mutator lineages can arise in populations, which suggests an increase in the mutation rate. Therefore, in the Discussion section, when the authors state that "Mutation rates are unlikely to differ significantly across viruses," I would suggest citing the supporting literature and expanding the discussion to make it more convincing.