Earth System Dynamics Discussions

Earth Syst. Dynam. Discuss., referee comment RC2
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Comment on esd-2021-84

Anonymous Referee #2

Referee comment on "Empirical evidence of astronomical lagged influences on climate: A consequent and verified global temperature 21st century forecast." by Jorge Sánchez-Sesma, Earth Syst. Dynam. Discuss., https://doi.org/10.5194/esd-2021-84-RC2, 2022

This manuscript seeks to address an extremely relevant scientific problem to the Earth System Dynamics community. Hence, in terms of placement within the scope of the journal, it would be perfect - provided the research would have been conducted in a thorough comprehensive and fail-proof or at least falsifiable manner.

However, notwithstanding the intellectually fertile ideas and insights as expressed in the conjectures and hypothesis laid out for investigation, formally speaking the study undertaking lacks fundamental scientific grounds to take off as a full-fledged research study. As also already pointed by another reviewer, whose words I fully endorse and hence will not repeat for obvious reasons, there are profound shortcomings and severe hindrances at both technical and scientific levels that make it unfeasible to simply amend in view of a possible publication.

I am aware of the author's keen efforts to further clarify and improve the manuscript. However, while I sympathise with such efforts and persistence, unfortunately I am so sorry to say that the fatal concerns are not yet sufficiently addressed. This study needs to go back to the drawing board and reframed from its very foundations, rather than undergoing amendments over what are unstable principles, assumptions and procedures.

Therefore, to that regard, my recommendation is for the author to take the fertile insights towards producing a clean, sharp, effective study. The present prepring is citeable and holds the proof of the precedence of the raised ideas and insights. But these need to be thoroughly investigated with technically sound methodologies to provide results that can provide a scientifically sound set of results that can give confidence about the proposed contribution. Until that happens, this study conveys a fertile albeit speculative exercise that is not yet sufficiently close to physical consistence to be deemed appropriate for final publication at Earth System Dynamics.

All in all, the problem is not on the hypothesis raised by the author, and which should indeed merit further investigation. It is about how such hypothesis are scientifically worked towards providing a robust contribution to the advancement of knowledge beyond a speculative theoretical exercise grounded on debatable foundations that themselves need to be properly investigated and potentially validated in perhaps a seminal study on its own.

Thank you for your consideration.