Comment on cp-2021-136
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Community comment on "Orbital Insolation Variations, Intrinsic Climate Variability, and Quaternary Glaciations" by Keno Riechers et al., Clim. Past Discuss., https://doi.org/10.5194/cp-2021-136-CC1, 2021

Hereby I post my Comments on this paper already sent to the authors:

"Thank you for letting me know about your new paper and also for including our (Daruka-Ditlevsen) model into it (https://link.springer.com/article/10.1007/s00382-015-2564-7). Concerning this, I can tell the following. As far as I can see, you (re-)define our model via Eqs. (29a-b). However, I noticed that in Eq. (29b) you treat the damping coefficient kappa as a constant, while in our original model, in kappa we included the very same slow time dependence (using exactly the same tanh function) as you define through Eqs. (30a-b). In our paper this slow time dependence in kappa was displayed through Eq. (4).

While you briefly mention in the introduction that our model is suitable for describing the MPT, later on, in the text it seems that you claim that you introduced this slow time dependence first (through modifying/deviating from our model), thus implicitly implying that such slow time dependence was not present in our model (line 460). Then, in lines 464-5 you claim that this slow time dependence (which you introduced) leads to an MPT like behavior, also inferred as a novelty. But we already had this in our model (via the damping coefficient kappa (Eq. (4)) and now you have it in parameters alpha and beta).

In our paper we demonstrated this very MPT-like behavior in Fig. 1, the middle blue curve corresponds to our model simulations already including a slow parameter change (slow time dependence in kappa). Indeed, this is very reminiscent of your Fig. 10c.

If you would like to keep our model in your review paper (it is also fine to me if not), would it be possible to display our Eq. (4) explicitly, the time dependence of parameter kappa (maybe numbered as Eq. 29c), along with the other two model Eqs. (29a-b)? As it comprises an essential part of our model, accounting for the MPT-like behavior. (In Eq. 29b maybe you could explicitly indicate kappa's time dependence k(t)*..."

In the meantime all authors agreed with the implementation of these suggested changes.