I would kindly like to ask you to review the proposed modifications and assess whether it would be possible to implement them in the paper. I attach the marked-up pdf, but will summarize below as well, since there are also some textual/reference tweaks in the PDF that may not be of interest to you.

1) Page 1 line 41:

original line: "Orbital forcing – quasi-cyclic changes in the climate system as a result of changes in the orbital configuration of the Earth (Milankovitch cyclicity) – caused superimposed variability in the climate system drivers and carbon cycle on

104–105 year timescales."

proposed change: delete the word "drivers" for simplification of the sentence.

2) Page 6 line 72:

original line: "Interestingly, the low-pass filtering occurs differently for the different tracers."

proposed change: replace "occurs differently" with "through the carbon cycle model is different for"

3) Page 7 line 19

original line: "The fast temperature response occurs because ocean temperature change propagates at a higher rate than changes in ocean chemistry."

proposed change: My co-author disagreed with this sentence, which caused me to suggest the addition of "Simply speaking," to the beginning of the sentence. My co-author disagreed, however, and proposed to replace the sentence with:

"The fast temperature response occurs because of the simple climate sensitivity parameterization used in the model (see Section 3.3)."

4) Page 11 lines 3--8 (the first paragraph)

original paragraph: "Looking forward, we could utilize phase-lag results of modelling studies to further constrain the lag between astronomical forcing and sedimentary records, allowing for an even

5 more precise absolute astronomical tuning. Currently, most studies assume no phase lag between astronomical forcing and the palaeo-record due to a lack of absolute ages relative to the astronomical solution."

proposed change: delete this whole paragraph, since two paragraphs above we say that we don't understand the phase lags yet.