

Dear Dr. MacGregor,

We thank you for the kind words. We have addressed all your comments and responded to them point by point. Please see our responses below.

11: "Thereby"

12: Specify the minimum temporal resolution needed. From my interpretation of the MS it is monthly, as seasonal (3 months) appears inadequate.

13: Can "longer timescales" be specified as "annual"?

We have changed all points mentioned in line 11,12,13 and write now:

In conclusion, projecting the future sea-level contribution from the Greenland Ice Sheet requires considering both the changes in the frequency and intensity of extreme events. It is crucial to individually address these extremes on a monthly resolution as temperature forcing with the same excess temperature but evenly distributed over longer timescales (e.g. seasonal) lead to less sea level rise than for the simulations of the resolved extremes.

60: I understand the rationale for the use of the term "full dynamics" here, but I caution that it is not a great use of the term as for a casual reader who miss this definition, it may imply a full-Stokes treatment or perhaps more explicit consideration of ocean forcing. If the authors could identify an alternative similarly brief term that does not use "full", I recommend doing so. Not essential.

We understand the editors concern but could not think of another short name for the experiment. Changing the name would probably mean, also to change the name of experiment 3. However, to avoid confusion, we now mention in the experimental description that full dynamics is SIA +SSA.

*61: Identify RCP acronym here.*

Done.

*101: Given that it is the PISM-default and bizarrely precise value, especially considering that it is explicitly stated later on how little is known about ocean forcing, "~0.05 m/yr" seems more appropriate here.*

Agreed, this was a copy and paste error from the source code. We changed the value now.

*259: Here and throughout the MS (e.g., 324-330), add \times between values and 10^X multipliers where needed.*

Done.

Figure 5: I really like the concept of this figure, but consider using a relative vertical scale (perhaps 50–200%) instead, so that the convoluted unit multipliers and the differences between these quantities are easier to understand. Then regional mean values can simply be stated in the legend instead of the multiplier. Move region labels to next to letters, e.g., “(a) NW”.

Yes, that is a better idea. We now show relative changes and state the initial values in in the panel.

*Combine Figures 7 and 8 and label their difference above them. Also, consider reversing the color scale.*

We combined the graphs but kept the color scale.

*Tables 1 and 3: Remove “m” from all table values and specify unit in table caption instead.*

Done.

*Table 4: Specify units (meters?) for values given in table.*

Done.