Review of "Lessons for multi-model design drawn from emulator experiments: application to a large ensemble for 2100 future sea level contributions of the Greenland ice sheet" by Rohmer et al.

This is the third round of review for this paper. I would like to thank the authors for their responses to my comments and for the changes made to the manuscript.

Given that the authors have responded positively to my major comments, I recommend that the manuscript be finalized for publication. I still ask the authors to carefully reread their manuscript, as there are still quite a lot of typos in the text (see specific comments below). Provided the authors also respond favorably to the more technical comments addressed by the first reviewer, I would recommend this paper for publication.

Specific Comments

Note: I am using the author's tracked-changes document for the line numbers.

(1) There is inconsistency in the use of hyphens for compound nouns used as adjectives; for example, you use both 'sea level contributions' and 'sea-level rise'. Please stick to one writing style throughout the text.

(2) When using mathematical symbols, please use italics. This is particularly relevant for Appendix A ('p' $\rightarrow$ 'p', 'L' $\rightarrow$ 'L', ...).

(3) Please avoid using fractions in running text. Either use a '/' symbol or write a full equation. For example, on line 810 you should write $RAE = (1/n_{\text{test}}) \sum_{i=1}^{n_{\text{test}}} |e^{(i)}/slc^{(i)}|$, or

$$RAE = \frac{1}{n_{\text{test}}} \sum_{i=1}^{n_{\text{test}}} \left| \frac{e^{(i)}}{slc^{(i)}} \right|. \tag{R1}$$

(4) You define slc in several places in the text and use it before it is properly defined. You should define it at the beginning of the manuscript once and for all.

(5) [Line 17] 'specific set' $\rightarrow$ 'a specific set' or 'specific sets'.

(6) [Line 20] 'warning' $\rightarrow$ 'warming'.

(7) [Line 74] '([...] by Edwards et al. (2010))' $\rightarrow$ '([...] by Edwards et al., 2010)'.

(8) [Line 78] 'as well' $\rightarrow$ 'as well as'.

(9) [Line 92] '(SSP126, SSP245, SSP585)' $\rightarrow$ '(SSP1-2.6, SSP2-4.5, SSP5-8.5)'.

(10) [Table 1] Follow-up on my previous comment (14): I am not asking to remove the categorical aspect in the column; rather, my suggestion was to use the symbols $\{a,b\}$ and $[a,b]$ to establish this distinction efficiently. Such notation is used in other multi-ensemble studies.

(11) [Line 148] '([...] by Aschwanden and Brinkerhoff (2022))' $\rightarrow$ '([...] by Aschwanden and Brinkerhoff, 2022)'.

(12) [Figure 4] Why is there an '(a)' at the beginning of the caption?

(13) [Figure 4] There is an inconsistency: you use a median of 7.9 cm SLE here but mention 8.7 cm SLE in the text.

(14) [Line 179] There is no need to mention '(named emulator)', as you have already described the concept of an emulator.

(15) [Line 185] '(sea level science, Tadesse et al. (2020); water resources, Tyralis et al. (2019); flood assessments, Rohmer et al. (2018))' → '(sea level science, Tadesse et al., 2020; water resources, Tyralis et al., 2019; flood assessments, Rohmer et al., 2018)'.

(16) [Line 185] 'Breiman et al. 1984' → 'Breiman et al., 1984'.

(17) [Line 188] 'Breiman et al. 1984' → 'Breiman et al., 1984'.

(18) [Lines 191–192] '(Hastie et al. (2009): chapter 9.2.4)' → '(Hastie et al., 2009; chapter 9.2.4)'.

(19) [Line 243] 'weather forecast' → 'weather forecasts'.

(20) [Line 257] 'GSAT scenario' → 'GSAT scenarios'.

(21) [Line 403] 'error-bars' → 'error bars'.

(22) [Line 404] 'quantile' → 'quantiles'.

(23) [Line 409] 'oppositive' → 'opposite'.

(24) [Line 677] 'Morlinghem' → 'Morlighem'.

(25) [Line 816] '(Bracher et al. (2021): Sect. 2.2)' → '(Bracher et al., 2021: Sect. 2.2)'.

(26) [Appendix E] 'Global Surface Atmosphere Temperature' → 'Global Surface Air Temperature'.

(27) [Appendix E] 'Inter-Sectoral Impact Model' (?) → 'Ice Sheet Model'.

(28) [Appendix E] 'Relative Absolue Error' → 'Relative Absolute Error'.