Technical corrections:

* In your references, please update the reference to Stauffer and Wing (2023) (which currently shows as being in review, though I see that it appears to now be published)

We have updated the reference to Stauffer and Wing (2023). Stauffer and Wing (2024) is still in review, so we have removed the references to this paper.

* If possible, please provide DOI versions of the exact CESM and SAM versions used in this paper (and update the code availability section accordingly). If DOI versions do not exist, could you please determine whether it is compatible with the licenses of the models to upload the exact versions to zenodo and provide a DOI that way? If neither is possible, could you please amend the code availability section to indicate the reason that the model codes are not provided in a long-term archive (consistent with GMD policy "Where the authors cannot, for reasons beyond their control, publicly archive part or all of the code and data associated with a paper, they must clearly state the restrictions" https://www.geoscientific-model-development.net/policies/code_and_data_policy.html)

We have created Zenodo repositories with the SAM and CESM codes and have updated the code availability section of the paper accordingly.

* line 521-522: "the simulations with different domain sizes generally have similar mean statistics" <-- please consider rephrasing this, especially considering how much precipitable water differs at 1.25 K in the MW_300dT1p25longwide and MW_300dT1p25long

We have rephrased this to "Despite the differences in convective structures discussed above, the simulations with different domain width generally have similar mean statistics (Figure \ref{fig:statevol-domainsize}). The \texttt{wide} simulations at both ΔSST = 1.25 K and ΔSST = 2.5 K have similar mean values and temporal variability as their narrower counterparts. The simulations with different domain length exhibit more differences…"

* Figure 11 - it may help readers to more easily interpret the figure if panels are provided above a--d showing SST vs X for each simulation (much of the discussion surrounding Figure 11 focuses on the correspondence between high SST and convective regions

We have added SST panels in Figure 11 and Figure 12 as suggested.

* Figure 11 - there is unexplained white space at the bottom of panels c & d. I assume that the first five simulations days were omitted for some reason? Please indicate this in the text.

The output for the first five simulation days was corrupted. We have added a note about this to the caption.

* Figure 3 - the colorbars are saturated in precipitation, pressure velocity, and OLR panels. How extreme are the values in the simulation? If the scale shown is preferred for visualization purposes, please indicate the min/max values in the figures or in the caption

We selected the colorbar scale for visualization purposes, so we have indicated the min/max values in the caption. The maximum and minimum values for the precipitation are 93.94/7.73e-07 (mm/day), for the vertical velocity -1263.09/118.18 (hPa/day) and for the OLR 102.57/315.85 (W/m^2).

* Figure 2 - please consider reducing the range of the color scale for w: barely anything is visible in the panel

We double checked the range of values and changed the color scale to -0.4 to 0.4.

* lines 285-286 - perhaps I'm overlooking something, but if the solar constant is set to a fixed value, then does the zenith angle have any effect? If so, it seems redundant to set the zenith angle to a fixed value too. (Maybe it factors in to the surface albedo calculation in some models, but if so, wouldn't that mean that the model's energy budget is somewhat dependent on the surface parameterization? If so, that's worth mentioning)

This set-up follows RCEMIP-I. With no diurnal cycle (in which zenith angle would vary) insolation is calculated based on the solar constant and zenith angle, so both need to be specified. As described in Wing et al. (2018):

A reduced solar constant of 551.58 W m^{-2} and a fixed zenith angle of 42.05° should be used (Table 2); these values yield an insolation of 409.6Wm^{-2}, equal to the tropical (0–20°) annual mean. The zenith angle is equal to the average insolation-weighted zenith angle between the Equator and 20° (see Cronin, 2014). The surface albedo is to be fixed at a value of 0.07, corresponding to its insolation-weighted globally averaged value.

We have revised the paper to state: Following \citet{wingetal2018}, a reduced solar constant of 551.58 W m^{-2}, a fixed zenith angle of 42.04°, and a fixed surface albedo of 0.07 should be used. The values of zenith angle and surface albedo are equal to the Equator to 20° and global average insolation-weighted values, respectively \citep{cronin2014}.

* line 246 - "$\lambda \ne L_x$ introduces substantial noise at higher wavenumbers (contributing to the majority of the variance of dSST^2/dx^2)" <-- Is this speculation, or was this tested and not shown? Please clarify.

This was tested but is not shown. We have clarified this in the manuscript.

* lines 187-188 - "the RCE_large300 simulation from RCEMIP-I should be repeated with the new version of the model, to represent a reference point" <-- the way this is phrased seems to conflict with the statement--that is repeated several times--that participation in RCEMIP-I is not required. Consider rephrasing to "if possible, the RCE_large300 simulation from RCEMIP-I..."

We meant that if the model *did* participate in RCEMIP-I, they should use the same version as they did then for fair comparison. If they can't use the same version, but still want to compare, then they should re-run the RCEMIP-I simulation with the new version.

We have clarified this in the paper.

* line 177 - the capitalized, bold NOT certainly draws the reader's attention: especially since modern, informal text communication styles tend to use capitalization to denote yelling. That said, this statement is repeated multiple times throughout and seems to come across clearly. Consider just using `\emph{not}` instead.

We have changed this to be lowercase and bold.