

We appreciate the reviewer for their secondary suggestions. Below we respond to each comment; reviewer comments are shown in black, our response is in *red italics*, and revised text is in **blue**.

Reviewer #1

The authors have attempted to address all of my comments. Thank you. I offer a few more minor suggestions where I think the presentation could be improved a bit more, to make points more easily understood.

Minor comments:

line 4: Insert "parametric" before uncertainties.

done

line 12: Change "Despite structural uncertainties" to "Structural Uncertainty is difficult to characterize, and this study focuses primarily upon an evaluation of parametric uncertainty"

done

line 20: Change "are tunable" to "may be reduced by tuning"

done

line 50: Insert the phrase "(parametric uncertainty)" after the word "parameterizations"

done

line 146: Insert "To provide some insight into the model sensitivity to structural uncertainties," before the sentence, and delete the phrase "as causes of model uncertainty" at the end of the sentence.

done

lines 251-254: I am still unhappy with the phrasing of this sentence. Here is a suggested rough rewrite of the sentence that I think would clarify the messaging (and feel free to fix it up if I have missed some of the points). "The remaining ERF_aci biases in ECHAM6-HAM in that region that are not explained by parametric uncertainties (and hence are attributed to structural deficiencies) have an amplitude of around 4W/m². This bias is somewhat different from the models analyzed in Shindell et al(), Regayre et al(), etc who noted large residual structural biases in persistent subtropical stratocumulus regions.

This sentence has now been modified to read:

The remaining ERFaci biases in ECHAM6-HAM in that region, which are not explained by parametric uncertainties (and hence are attributed to structural deficiencies), have an amplitude of approximately 4 W m⁻² over the regions of persistent stratocumulus clouds (Neubauer et al., 2019). This bias differs somewhat from the models analyzed in Regayre et al. (2018); Smith et al. (2020) and Shindell et al. (2013).