Dear Michael Byrne,

We would like to thank you and the anonymous reviewers for your feedback on the initial version of our manuscripts. The comments provided valuable input for the presentation of our work.

We have identified three main points of criticism that were raised in one way or another by all the reviewers:

1. Unclear presentation of the methodology. We have adapted the methodology to more explicitly state the assumptions made in our model setup, e.g. the vertical distribution of relative humidity and the treatment of cloud optical properties.
2. An incomplete discussion of the existing literature. The lack of more recent literature was due to the fact that the manuscript was written in 2021 and, for various reasons, not submitted until 2024. On completion, we made the mistake of only updating our own manuscript in the references. We were happy to add the suggested literature, which led to rewriting large parts of the introduction.
3. A lack of clarity about the conceptual nature of this study. In the first version of our manuscript, it seemed unclear to what extent the quantitative results of our model could and should be compared with other models or even observations. In rewriting the introduction and discussion, we have placed more emphasis on the conceptual nature of our study, including a change of title.

One point we have not included in the manuscript is the decomposition of feedback changes by individual drivers (kernels) for comparison with other models. This is a deliberate decision, as we believe that looking at the response to changes in a single field without considering the thermodynamic environment that caused the change can lead to artificial interpretations. This is one of the reasons why we have designed this conceptual study.

We included point-by-point responses to each author's comments in the open discussion section. We felt that a single response file would actually obscure what was done and why, due to the pleasingly large number of comments received. We hope that this summary, combined with the individual responses and tracked changes, is a sufficient substitute.

Best wishes,
Lukas Kluft on behalf of all the authors