

Review for “Aerosol effects on convective storms under pseudo-global warming conditions: insights from case studies in Germany” by Lucas et al.

Thank you to the authors for working through the extensive comments of both reviewers. I believe the manuscript improved greatly. For future review processes, I recommend to the authors to add the line numbers of the changes (from the final, revised manuscript) in the responses to the reviewers. This way, it is easier to see where the changes were made and how they now fit in the adapted manuscript. I refer to the line numbers of the final manuscript here.

Major comments

- **Domain averages:** I agree with the authors that domain-averages smear out the signal, however, for convective storms it makes sense to first define a threshold, e.g., via total hydrometeor mass and then average, such that grid points with no storm are excluded. This should be considered when conducting domain averages (e.g., Figure 12).
- **Heatmaps:** The authors argued that additional numbers in the heatmaps (such as Figure 8) are not needed, which I still disagree with, however, at a minimum the same range for should be used such that a direct comparison across the three cases is possible. I would still say numbers should be add as well.

Minor comments

- Line 2: emissionS regulations → emission regulations
- Line 100: The model description is missing the model time step as well as the output frequency.
- Line 105: What are summertime INP concentration? Please add the number concentration, as it is kept constant.
- Line 134: The authors responded that CCN concentrations of 1700 cm^{-3} are rare in the response to reviewer 1, but in the main text they chose to still state that these are typical conditions. Please remedy that and just define C3 as the reference, which is also fine.
- Line 215: What density is assumed for the hail particles?
- Line 380: References missing