

## ***Interactive comment on “Using an antidiffusive transport scheme in the vertical direction: a promising novelty for chemistry-transport models” by Sylvain Mailler et al.***

**Sylvain Mailler et al.**

[sylvain.mailler@lmd.polytechnique.fr](mailto:sylvain.mailler@lmd.polytechnique.fr)

Received and published: 12 February 2021

We are very grateful of the thorough review performed by the Referee and we would like to thank him for his very encouraging opinion on our work. Due to the useful suggestion of using the same splitting strategy for all numerical experiments to increase confidence in our results, we have redone most of the calculations that were presented. The resulting differences, however, are very small, and do not change the interpretation, strengthening our confidence in the results we present.

We have performed all the changes that were asked by the Reviewer, and believe that the review process has greatly helped us improve our work.

C1

The detailed answers will be found in the attached pdf file.

Please also note the supplement to this comment:

<https://gmd.copernicus.org/preprints/gmd-2020-304/gmd-2020-304-AC1-supplement.pdf>

---

Interactive comment on Geosci. Model Dev. Discuss., <https://doi.org/10.5194/gmd-2020-304>, 2020.

C2