

Dear Franziska Aemisegger,

Thank you for your review of our paper and revisions.. Please find our answers to your comments here below.

- L. 53 lagrangian with a capital L

Thank you for pointing this out. We did the correction.

- I think the term single-trajectory model is a bit misleading because also with LAGRANTO scientists use large ensembles of trajectories for the interpretation of atmospheric sources of specific species. So at L. 51, it could be written: "First, trajectory models using solely the resolved wind fields without turbulence or convection parametrisation..." To me this would be more exact.

We followed the suggestion and modified the text accordingly. We modified also the reference to these models on L56:

*"In the following, we will refer to **the outputs of the first model category** as backtrajectories [...]."*

- L. 562: "However, we got rid of the latter in our evaluation experiment since we use the same model to produce the data and to feed the LPDM." - please reformulate, "to get rid of" sounds colloquial to me and not like proper scientific English

We replaced "getting rid of" by "**eliminate**" everywhere we used the former. This takes place on lines 210, 274, 531, and 562.

- L. 573-576: there is a problem with this sentence: "... the assessment results shown that its performances are insufficient" -> the assessment results have shown.

We did the correction. Thank you for pointing it out.

Kind regards,

Anderson Da Silva and co-authors