

Dear Dr. Graham,

Thank you very much for your suggestions on improving the abstract as well as the final sentence. With “explicit aerosol schemes” we meant the explicit calculation of microphysics instead of “implicit calculations with operator splitting” (i.e. with sub-stepping). But we see that this could be mistaken as it was written.

We have implemented all your suggestions as proposed except for a slight adaption in the final sentence of the paper:

“This study has shown that technical developments of the models can improve the fidelity of strat-SRM assessments, and motivates dedicated effort towards further developing existing aerosol schemes for more sophisticated numerical methods, including potentially incorporating aerosol tracer tendencies into existing gas phase chemical solvers.”

We think the word “assessment” is more suitable instead of the word “predictions”, since the word “prediction” could be mistaken for implying future deployment of strat-SRM.

Sincerely,

Andrea Stenke, Sandro Vattioni & Co-Authros