Geoscientific
Model Development
Discussions

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Interactive comment on "The Lagrangian analysis tool LAGRANTO – version 2.0" *by* M. Sprenger and H. Wernli

Anonymous Referee #4

This paper introduces the version 2 LAGRANTO model and explains all the advanced capabilities and the commands that can be used and the extra tools within the model that can be used to create advanced runs or create an output that is most suited to the user.

Version 2 of the model seems to suggest that a whole paper dedicated to this version is indeed need. It gives more flexibility to the user than its predecessor and any other models. There is a good historical context given in the introduction and the caveats and functionality that was issing on others is well explained.

As a user of these type of models, rather than a developer, I did find it rather detailed but if I was going to start using this, this would be a perfect instruction manual on how to make the most of my runs. The paper has all the information needed but is a hard read

from start to finish due to the nature of the subject. However the intro to each section, explaining the circumstances in which each part of the model are used puts a context into the read and the scientific, rather than just technial details to come out in these sections. Particularly, the excellent figures would explain far more to the scientists than the words in the text at times and they made read a lot into the capability of the model from browsing through these and working out which type of analysis would suit them.

Comments: p.1895: when listing the other dispersion models, it would be good to mention the UK Met Office's NAME model.

More specific comments: p.1894 line 18: these examples rely on

p.1901 line 13 Northward

p. 1905 line 18 Proceed ON its course

p.1907 line 12: Present in both sets /being part of both sets

Figure 6 text: Panels

I suggest that this paper be accepted pending taking into account the reviewers comments and suggest that a very specialised reviewer who knows a lot about these models should review the final paper. I believe that this paper could bring someone from a low knowledge of the model to an advanced user in a small amount of time and hope that the next few versions of the model coul be explained just as well and under similar headings in any future updates.