Geoscientific
Model Development
Discussions

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Interactive
comment

Interactive comment on "tobac v1.0: towards a flexible framework for tracking and analysis of clouds in diverse datasets" *by* Max Heikenfeld et al.

Anonymous Referee #1

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This paper present a tracking code for clouds and other atmospheric objects, using modern programming techniques and languages. The topic is certainly not new, but the fact that the code is developed to be flexible and openly available warrants a code description paper. I find the paper clearly written, appreciate the examples, and recommend publication after the following minor questions are answered:

1) Was it a conscious decision to not tack on "... and COnvection" to the acronym?

2) What is the performance of this algorithm? For example, for each of the test cases, what was the maximum memory footprint, runtime of the script, etc

3) It makes sense to separate the several stages of the workflow from a coding point of

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[Discussion paper]

view; is it also possible to save data after the trajectory linking, and if so, in what format and what kind of design?

4) P6: Do I understand correctly that the feature detection only works in 2D? Dawe and Austin (and others) did 3D feature detection, which ends up being more precise, especially also in the tracking part.

5) P9, l20: A circular range parameter v_max suggests that the trajectory linking is performed isotropically. Is it possible to assign/automatically retrieve an advection velocity as well? Heiblum et al did this very effectively.