

GMD-2023-45 Intercomparisons of five ocean particle tracking software packages in the Regional Ocean Modeling System

We appreciate suggestions from the topic editor to make our code and data more accessible to the public. Please see below, in blue, for a point-by-point response. The line numbers refer to the tracked version of our manuscript.

Topical editor's comments:

Public justification (visible to the public if the article is accepted and published):

1) There are several instances of references to other models e.g.: “OceanParcels (<https://oceanparcels.org/>), Ichthyop (<https://ichthyop.org/>), TRACMASS (Döös et al., 2013), PaTATO (Fredj et al., 2016), TrackMPD (Jalon-Rojas et al., 2019), OceanTracker (Vennell et al., 2021), Deft3D-PART (Deltares, 2022), Ariane (<http://stockage.univ-brest.fr/~grima/Ariane/>), and CMS (<https://github.com/beatrixparis/connectivity-modeling-system>).”

Please provide DOIs when possible or last access dates to the webpages.

Response: we replaced all links to the webpages with respective references that have DOIs (lines 33-36).

2) When referring to unpublished material, e.g.: “https://faculty.washington.edu/pmacc/LO/p5_Phab_full_salt_top.html,...” one would usually provide last access date. It would be even better to provide a screen capture of the page as pdf in the supplements. In the long run this page will be probably lost. This applies to all web citations.

Response: thanks for the reminder. We replaced this link with an appropriate citation here (lines 47-48). The link in line 57 has been replaced with a screen capture of the page as pdf in the supplements, and the link in lines 154-155 was replaced with a reference.

3) Throughout the text there are a references to your own work hosted in github. The GMD policy does not accept github as a permanent resource. You need to provide a referenced to Zenodo (with DOI) or submit the git directory as supplementary material. (an example can be found in <https://github.com/parkermac/LO/tree/v1.1/tracker/experiments.py>). Please develop the example and provide all necessary files to run it as supplement.

Response: we removed the links to Github (lines 120-123) and attached the two codes ([experiments.py](#) and [zfun.py](#)) in the supplementary material.

4) More importantly, the Code availability section (line 360) expressess: “All example codes and

hydrodynamic outputs that were used to test these five particle tracking packages can be found in https://github.com/Jilian0717/LPT_intercomparison/tree/main and <https://zenodo.org/records/10223144>.”

Checking the Zenodo zip archives, one can find the “model_output” folder, that contains the advecting fields and initial conditions for the models and the “LPT_intercomparison_tracking_packages” that contains the code for some of the models. It doesn’t contain a subfolder for the source code of Tracker though.

Please make sure that all necessary code, input data, documentation and instructions (tutorials) are included in the Zenodo repository or, even better, as supplementary material to this submission.

The archive should be self contained without references to external websites.

It should be possible to install and run the models (at the very least Tracker) and produce the relevant output following specific instructions.

Response: Thanks for the suggestion. It was not possible to upload all code and input data as supplementary materials due to file size limitations, however we did include representative samples of the model output files to allow the archived codes to run. Please see the new Zendo repository at <https://doi.org/10.5281/zenodo.10493839>. We revised the statements in Code/Data availability (lines 359-366) as well.