

Interactive comment on “Data assimilation of in-situ and satellite remote sensing data to 3D hydrodynamic lake models” by Theo Baracchini et al.

Anonymous Referee #1

Received and published: 9 September 2019

This paper is well written and presents the data assimilation of in-situ observations of 3D lake models. The authors use EnKF based methods to assimilate the data so as to account for both model and data uncertainties. The results are presented well.

I have the following minor comments to make

1) Although authors talk about Model errors, they do not describe literature relevant to model errors

2) Also, a paragraph about variational data assimilation should be mentioned

Relevant citations:

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1) Model Error in Data Assimilation

2) Accounting for Model Errors in Ensemble Data Assimilation

3) A Posteriori Error Estimates for the Solution of Variational Inverse Problems

4) A review of operational methods of variational and ensemble variational data assimilation

Interactive comment on Geosci. Model Dev. Discuss., <https://doi.org/10.5194/gmd-2019-47>, 2019.

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