

Earth Syst. Sci. Data Discuss., author comment AC1
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Reply on RC1

Jiye Zeng et al.

Author comment on "A new estimate of oceanic CO₂ fluxes by machine learning reveals the impact of CO₂ trends in different methods" by Jiye Zeng et al., Earth Syst. Sci. Data Discuss., <https://doi.org/10.5194/essd-2022-71-AC1>, 2022

Thanks to the reader for the comment.

Strictly speaking, YEAR was not included in training machine learning models directly. Instead, the annual increase rates of CO₂ at decadal scales were extracted by an iteration method and the rates were used to remove the trend in CO₂ measurements. The trend removed (or normalized) data were used for training the models. The iteration method used machine learning to remove the dependence of CO₂ on SST, SSS, MDL, CHL, LAT and LON and used linear regression to removed the dependence of CO₂ on YEAR.

In addition to citing the referenc of the iteration method, we will put the description in the next revision.