

Interactive comment on “Scaling carbon fluxes from eddy covariance sites to globe: Synthesis and evaluation of the FLUXCOM approach” by Martin Jung et al.

Martin Jung et al.

mjung@bgc-jena.mpg.de

Received and published: 29 January 2020

We thank Reviewer #1 for the positive assessment of our work and manuscript.

Reviewer #1 raises a challenging point here as machine learning methods differ fundamentally in their maths, algorithms, and approaches to training and hyper-parameter tuning. This has been described in the FLUXCOM cross-validation paper by Tramontana et al. 2016 with ample references therein for further information. It is very hard, probably impossible, to anticipate how results would differ by machine learning choice. Therefore, different methods have been included in the FLUXCOM ensemble. One overall conclusion of our synthesis is that the choice of the predictor set given to the

C1

machine learning methods matters more than the choice of machine learning method. Due to this finding, results differing by machine learning method are presented in the supplementary material rather than the main article. We therefore agree with the reviewer that including more details on machine learning methods is beyond the scope of the paper and would not improve clarity.

Interactive comment on Biogeosciences Discuss., <https://doi.org/10.5194/bg-2019-368>, 2019.

C2