

## **Final response**

Dear Editor,

Please consider the revised manuscript incorporating the reviewer suggestions and comments.

### **Reviewer comment:**

**The manuscript as written represents an improvement and I note that this review refers to the technical aspects of the analysis; copyediting is necessary and various aspects of the flow of the manuscript could still be improved. But the comparison between the machine learning and "standard" methods for carbon flux estimation is rigorous and interesting and I recommend that the manuscript be accepted following technical (mostly language) corrections for this reason.**

**Figure 2: is this the 90% flux footprint or the peak of the source weight function or something else? I'm not sure what the gray dots refer to. The conclusion can be strengthened by noting the Santa Rita site in comparison, which further emphasizes the challenge that ML approaches may be best applied locally and that future research should seek ways to make their predictions more generalizable (ideally through a mechanistic understanding of ecosystem processes).**

Many thanks for your reviews and dedication. Please consider this new version. We attended the main two comments regarding to Figure 2 and conclusion. Other minor corrections were made as you suggested.

If you have any other comments, we will happy to solve them.

Best Regards

Mónica Cervantes-Jiménez