

Atmos. Meas. Tech. Discuss., author comment AC1
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Reply on RC1

Javier Gorroño et al.

Author comment on "Understanding the potential of Sentinel-2 for monitoring methane point emissions" by Javier Gorroño et al., Atmos. Meas. Tech. Discuss.,
<https://doi.org/10.5194/amt-2022-261-AC1>, 2022

Dear Cristina,

Thanks for your constructive and careful review. We have incorporated your comments in the reviewed version. Here we list a small subset of the comments with a brief answer to them.

- *L118: Why didn't you run the simulations at 20x20 m2 to begin with?*
- Running these type of simulations consumes time and file size. It is possible to run these simulations at 20 or lower spatial resolution but at the expense of more processing time and file size. We checked that the interpolation error was negligible.
- *L142: Can you explain this further?*
- We have added a sentence at the end of the paragraph which better explains this.
- *L230: Which one?*
- The correct package is now cited.
- *L236: What do you mean? Can you clarify? It sounds like you use the same reference for both sites, which I don't think is what you mean.*
- We have rewritten the sentence to clarify this point.
- *L276: I would refer to these plots as something like 'masked plumes' or 'masked ΔXCH_4 ' rather than 'masks'. I understand a mask as a 2-D boolean array that determines what pixels to keep and what pixels to discard.*
- Done
- *Fig.7: I would refer to these plots as something like 'masked plumes' or 'masked ΔXCH_4 ' rather than 'masks'. I understand a mask as a 2-D boolean array that determines what pixels to keep and what pixels to discard.*
- Done
- *L348: what scenarios? do you mean masking criteria?*
- This has been clarified in the text.
- *L369: What does this mean?*
- This has been clarified in the text
- *L377: What do you mean exactly? Do you mean that if you apply a linear fitting, there is higher disagreement for higher U10?*
- When comparing the two linear fittings, the slope disagreements results in an error the higher U10 is. It is an illustrative scenario since it will also depend on the fitting process itself.