

Interactive comment on “On biases in atmospheric CO inversions assimilating MOPITT satellite retrievals” by Yi Yin et al.

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First, we thank Dr. M. Deeter for his comments.

In general, the authors appear to understand the points I raised in my first comment, and have stated their intention to clarify these points in the revised version. I will therefore need to read the revised version before commenting further.

We have carefully revised those points. We also reduced the volume of text regarding the MOPITT algorithm following the reviewer's suggestions, since it is not our results and has been well documented.

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However, the authors do not seem to have understood the point I raised about the V6 TIR/NIR validation results. Their response to this comment was "We cited the MOPITT papers that we consider most relevant and latest - in total four papers by Deeter et al." The issue is not whether the V6 validation paper was cited or not. The point here is that any conclusions made in the submitted manuscript regarding retrieval bias (for example, in Sections 3.2, 3.2, and 5.3) should be related to what is already known about such biases. There is valuable information in the V6 validation paper, especially regarding biases in the V6 TIR/NIR product over the Northern Hemisphere, that is completely ignored in the submitted manuscript.

We have followed this recommendation and have added more discussion regarding previous evaluation results in Section 6.2.

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