

Interactive comment on “Intercomparing CO₂ amounts from dispersion modeling, 1.6 μ m differential absorption lidar and open path FTIR at release at Caldara di Manziana, Italy” by M. Queißer et al.

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The authors would like to thank the constructive comments made by the reviewer and the time he/she took. Below please below find the

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responses. For the sake of interactivity this is a preliminary response. We would like to have a feedback of the reviewer, in particular, for 2.5 (consistency of measurements). After that a completed response will follow.

All changes made to the manuscript are marked in yellow. Author’s replies are marked in green.

To summarize the main changes made to the manuscript, as a result of the reviewers comments we now think that it is not appropriate to a priori expect a good match between the instrumental CO₂ concentrations, due to the potentially very different CO₂ distributions sensed owing to their different alignment. Despite qualitative agreement between the DIAL and the OP-FTIR result the rather complex CO₂ distribution along with the non-ideal measurement geometry and the early development stage of the DIAL prevent a robust

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quantitative comparison yet.

Please see attachment for the complete text.

Please also note the supplement to this comment:

<http://www.atmos-meas-tech->

[discuss.net/8/C1687/2015/amtd-8-C1687-2015-](http://www.atmos-meas-tech-discuss.net/8/C1687/2015/amtd-8-C1687-2015-supplement.pdf)

[supplement.pdf](http://www.atmos-meas-tech-discuss.net/8/C1687/2015/amtd-8-C1687-2015-supplement.pdf)

Interactive comment on Atmos. Meas. Tech. Discuss., 8, 4325, 2015.

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