Interactive comment on “Intercomparing CO$_2$ amounts from dispersion modeling, $1.6 \mu m$ differential absorption lidar and open path FTIR at a natural CO$_2$ 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 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
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-supplement.pdf