

## ***Interactive comment on “Towards space-borne monitoring of localized CO<sub>2</sub> emissions: an instrument concept and first performance assessment” by Johan Strandgren et al.***

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Received and published: 20 April 2020

After the manuscript had been accepted for publication in AMT (but not yet published), a small mistake related to Fig. 6, showing XCO<sub>2</sub> retrieval errors as a function of total optical thickness (aerosol optical thickness (AOT) + cirrus optical thickness (COT)), was discovered. When reading the AOT and COT for the respective scenes in order to compute the total optical thickness for the scene and generate the plot, the COT was mistakenly added twice. Hence, the total optical thickness presented in Fig. 6 is consistently higher than the actual optical thickness used for the respective radiative transfer simulations.

C1

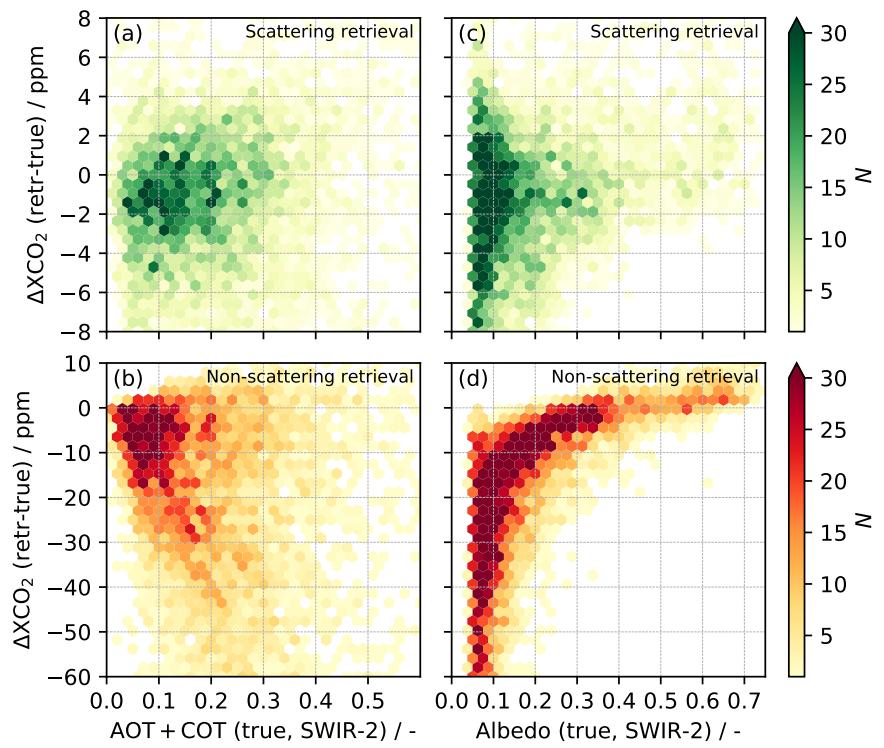
The radiative transfer simulations themselves as well as the corresponding XCO<sub>2</sub> errors etc. are still correct and valid, it is only that the span of the x-axes in Figs. 6a and 6b is too wide and should range from around 0.0 to 0.6 rather than 0.0 to 1.1. Directly related to this, the sentence at Page 10, Line 23-24 (in the AMTD version of the manuscript) describing the range of AOTs in the global trial ensemble should say “..., *aerosol optical thickness (AOT) ranging from 0 to 1.0 with an average of 0.05 (SWIR-2 window) ...*” instead of “... *aerosol optical thickness (AOT) ranging from 0 to 1.1 with an average of 0.18 (SWIR-2 window) ...*”. Apart from that, no text, figure, statement or conclusion in the manuscript is affected by the mistake.

The mistake will be corrected for the final version of the manuscript and the new corrected version of Fig. 6 can already be seen below.

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Interactive comment on Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2019-414, 2020.

C2



**Fig. 1.** Corrected version of Fig. 6 in amt-2019-414 (Strandgren et al., AMTD, 2020)

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