

Interactive comment on “Ensemble-based satellite-derived carbon dioxide and methane column-averaged dry-air mole fraction data sets (2003-2018) for carbon and climate applications” by M. Reuter et al.

Anonymous Referee #1

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Reuter et al. have updated and extended the first EMMA paper (Reuter et al., 2013). No breaking news for those who already read the first opus: the second one may even look a bit boring. For the newcomers, this is a solid and well-written text that synthesizes the state of the art in XCO₂ and XCH₄ retrieval performance from the point of view of a “community” retrieval product. There are a few typos or awkward expressions that deserve attention (l. 10, 99, 115, 127, 140, 206, 233, 359). I also regret that the authors have dropped the information about the data weight of each algorithm in EMMA.

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Detailed comments:

- Table 6: data numbers and period covered are missing. Actually is 0.02 ppm for FOCAL at SOD significantly different from 0 (l. 360)?
- l. 382-5: repeated information

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