**Interactive comment on** “Modelling the impact of sub-grid scale emission variability on upper-air concentration” by S. Galmarini et al.

Anonymous Referee #3

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I would recommend the paper for publication, with many of the same comments as the other reviewer. In addition I think the use of the word upper air is wrong. It should be replaced with boundary layer. Also the the index zi in many of the plots are not defined.

Page 12294 3rd line "terms (3,4,5) of Eq.2 can be parameterized" Eq 2 has only 4 terms so I assume it should be Eq. 1?

The test assume that the emissions are released at the surface, but many compounds, e.g. SO2 may be released several hundred meters above the surface. Do the authors expect similar results also in this case.

I would like to see full figure texts. The full figure texts are not that long so that "As shown in figure xx" are needed.