

Atmos. Meas. Tech. Discuss., author comment AC4
<https://doi.org/10.5194/amt-2022-8-AC4>, 2022
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Final comments from the corresponding author

Guy Delrieu et al.

Author comment on "Sensitivity analysis of attenuation in convective rainfall at X-band frequency using the mountain reference technique" by Guy Delrieu et al., Atmos. Meas. Tech. Discuss., <https://doi.org/10.5194/amt-2022-8-AC4>, 2022

Again, we want to thank the three anonymous reviewers for their efforts in reviewing this article and the very valuable comments made.

The main change we intend to make is to move most of the formulation of the algorithms (sections 2.2 and 2.3) to an appendix so that readers' attention is not "dulled" when the sensitivity analysis procedure is described (section 2.4, 3.1) and its results presented (sections 3.2). We have also noted some more specific points that can be improved easily (figs 1 and 2, description of the GSA procedure, citation and discussion of articles about A-Kdp relationships, etc).

The first comment of reviewer 3 (how the results of your algorithm developments and attenuation estimates would benefit the accuracy of QPE retrievals compared to existing algorithms?) could perhaps be addressed more satisfactorily by introducing an assessment of the parameterizations obtained in relation to independent raingauge measurements. However, this would lead to more extensive changes and additions to the article which has already been described as "difficult to read" by reviewer 2.

So, unless the reviewers and the editor find it necessary, we will not add the results of this assessment exercise, which is still in progress.