Interactive comment on “The AERONET Version 3 aerosol retrieval algorithm, associated uncertainties and comparisons to Version 2” by A. Sinyuk et al.

Anonymous Referee #5

Received and published: 18 February 2020

The paper is, in the main, well written and a valuable resource for the wide Aeronet user community and the larger atmospheric aerosol community in general.

The other reviewers have done a thorough job reviewing the manuscript. I will only add a few points here.

1) As noted by reviewer #4 that the results need a deeper discussion, however, the paper is already long. Reviewer #4 suggests splitting the paper into two parts, the description on the algorithm and the evaluation of uncertainties.

In general, I see the merit in this suggestion. I would add that the authors should consider the use of appendices for more detailed discussions. Doing this could improve C1
the readability of the paper without compromising the level of detail for the ‘expert’ reader.

2) Reviewer 4 also makes points out the shortcomings in the scatter plots i.e. when so many points are plotted all it results in a ‘blob’ being produced and the information as to the number of observations represented is lost. I strongly agree with Reviewer 4’s recommendation regarding this point.

Editorial issues not noted by other referees.

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Line 40. Insert a comma after 'statistics'.

Line 340: 'the backscattering direction.'

Line 450: 'new' ==> 'newly'

Line 456: 'by varying the azimuth angle similar to that of an ALM scan except than the view angle is not equal to SZA.

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