

Interactive comment on “Validation of CALIPSO space-borne-derived aerosol vertical structures using a ground-based lidar in Athens, Greece” by R. E. Mamouri et al.

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We would like to thank the anonymous referee for his constructive and helpful comments/suggestions on our paper. Referee comments (*italics*) and authors' replies are presented below.

The work described in this article is very interesting, and the authors achieve here a difficult work. As one of the previous author of a similar study using ground lidar datasets to validate the CALIOP dataset [see Kim et al, ACP, 2008], we know the difficulty of such a task. This type of validation is essential in the view of the validation of the CALIOP Spaceborne dataset. I think this study is well fitted for publication.

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However, I got some minors specifics comments that must be taken in consideration. Specific comments

- Page 562 line 24 : NASA/CNRS must be changed to NASA/CNES

Corrected in the final version of the manuscript.

- Page 563 line 7 : The reference [Spinhirne et al., 2005] is not given inside the list of the references.

The reference [Spinhirne et al., 2005] was added to the list of the references.

-Comment for page 563 lines 13 to 15: I'm ok with this commentary about the resolution. But you should mention also the length of the CALIPSO measurements (3 years now). Also the fact that the LITE data got before a better vertical resolution than ones of the CALIOP (15 meters on the vertical).

CALIPSO time length of measurements and LITE reference and vertical resolution were added in the text.

- Page 566 Line 5 : (THE) Hampton University

Corrected in the final version of the manuscript.

-Page 568 equation 2: you must to have the same writing of the extinction that you have given inside the line 10.

Corrected in the final version of the manuscript.

-In the equation 3, could you write the altitude dependence $_ (z)$ and not only $_$.

Corrected in the final version of the manuscript.

-Please, could you check the list of yours references? As an example, the Balis references are not listed following the date of the publications. The same for the Ansmann references, the Papayannis references.

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The references were listed following the date of the publications.

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