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.
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 resolu-
tion. 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 refer-
cences are not listed following the date of the publications. The same for the Ansmann
references, the Papayannis references.

C240
The references were listed following the date of the publications.