We thank the reviewer for his/her constructive comments. We will provide a comprehensive revision and point-by point response later, while the purpose of this short note is just to clarify one apparent misconception that has now appeared. Since it is about a very essential and fundamental point, regarding the basis of our study, we considered it useful to clarify this misconception already now, at this stage of the revision processes. It is about the longish point #1 of the reviewer, however its main message can be perhaps best summarized by this sentence: "we don't know how good those retrievals are and how much they are contaminated by cloud". In other words, the reviewer had two major concerns: 1) the quality of the L1 measurements we included, 2) the ability of the SDA fine mode AOD to represent aerosol optical depth in cloudy conditions. We try to explain both issues below.

First about the data quality of L1 and L2 for the purpose of our study. There was indeed a very careful checking of the retrievals included, as we will further elaborate below. Many of these things take place already in the normal AERONET data processing. Moreover, we applied several additional criteria regarding what Level1 data to include. We admit that the latter points, in particular, were not sufficiently stressed in the current version of the manuscript and we will improve the revised manuscript in this respect.

First, briefly about the "AERONET-inboard" checking. Pertinent here is, for example, an excerpt from Eck et al. 2014: "The direct sun measurement data are not included in the AERONET Level 1.0 data set if the variance of the raw signal is very high within the triplet sequence. The variance threshold applied is based on the root mean square (RMS) differences of the three direct sun triplet measurements relative to the mean of these three values. If the (RMS/mean)·100% of the triplet values is greater than 16% then the data will not be used for computation of AOD and the data will not appear in the Level 1.0 data set. This temporal variance threshold primarily removes data that are affected by clouds with large spatial–temporal variance in COD. This effectively removes much of the cumulus cloud contaminated data, although some of the thinner edges with lower COD do remain in the data."

In the AERONET Version 2 Level 2 database, if there are only 1 or 2 points remaining in a day after automatic cloud screening (Level 1.5), then none of this data reaches Level 2. In other words, at least 3 AOD observations are need to pass the Smirnov et al. (2000) cloud screening algorithm in order for the data to reach Level 2 for that day.

Second, briefly about the criteria (that we will thoroughly describe and include also in the revised version) that we applied in our additional QA checking: 1) we required that AOD for SDA algorithm was available from all the channels utilized by SDA (380, 440, 500, 675, and 870 nm), in order to ensure that the AOD spectra input to the SDA were always of good quality, 2) Level 2 data had to be available within one-week time window, to rule out any instrumental problems, 3) outliers were removed according to the following criterion:

Abs(AOD500nm- AODSDA500nm)>(0.02+AOD500nm*0.005).

NOTE: This is the same consistency check between measured AOD at 500 nm and SDA retrieved total AOD at 500 nm that is applied in the quality control checks for AERONET Level 1.5 data for SDA.

We believe that after these QA steps, the retrievals that were eventually selected were indeed thoroughly checked to include meaningful information for the purpose of our study.

Second, briefly about the ability of SDA fine mode AOD to represent AOD in cloudy conditions. Eck et al. 2014, that we cited and referred to as well, includes a lot of information/justification why the AERONET Version 2 Level 1 data include meaningful information for this type of analysis that we have carried out. Figure 3 there, in conjunction with Figures 16a and 16b, show how the large triplet variation data, which is often screened from Level 2, is in fact good fine mode AOD data, but with higher temporal variability due to the turbulent and dynamic conditions in the vicinity of cumulus clouds.

The following direct excerpt from Eck et al. 2014 will hopefully further clarify this issue: "The AERONET data in Fig. 2 were not screened for clouds (Level 1; see Sect. 2.2 below), since O'Neill et al. (2003) have shown that SDA identifies cloud optical depth as the coarse mode AOD component. Analysis by Chew et al. (2011) of AERONET measured spectral AOD in conjunction with lidar data in Singapore has shown that the SDA technique effectively separated the coarse mode (cirrus cloud contamination, as identified by lidar) from the total optical depth without affecting the fine mode component. Additionally, Kaku et al. (2014) have verified that the SDA technique is also effective in separating the fine and coarse modes from in situ spectral optical measurements."

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