In the paper titled "EVALUATION OF UV AEROSOL 1 RETRIEVALS FROM AN OZONE LIDAR", the authors described a new approach for retrieving aerosol properties using an ozone lidar (DIAL). The use of an ozone lidar for aerosol retrievals is rather interesting yet I have some issues with the paper, listed below, that I hope the authors can address.

Several of the parameters, including the lidar ratio and aerosol backscatter color ratio, are a strong function of aerosol type. A lidar ratio of 0.6 is assumed with a 20% uncertainty. The aerosol backscatter color ratio is assumed to be 1.34 with an uncertainty of ±0.11. Note that for different aerosol types, both parameters could change significantly (beyond their mentioned uncertainties). It is unsure if aerosol type could be derived from the proposed method. Without a valid method for retrieving aerosol types, generalized applications of the proposed method may be problematic. The authors should at least clearly illustrate the limitations.

AERONET data are also available from the Huntsville AERONET site. I wonder if the authors could inter-compare AERONET AODs with HSRL/ RO3QET lidar derived AODs. At least the authors should compare HSRL and AERONET AODs.

The retrieved aerosol profiles are used to further refine ozone retrievals. I was wondering if the refined ozone retrievals can be further used for refining aerosol retrievals.

Other comments

Line 121, "as you go towards the" - who is "you"?

Line 141, "10-min temporal average and 30-m spatial average for both HSRL". - Should be "30-m vertical average"?

Lines 151-152, "Therefore, data contaminated by clouds is filtered out. " - What are the cloud screening steps? Those steps need to be included.

Lines 170-171, "The slope of the regression (2.16) results in the best" - what is "(2.16)" referring to?

Line 278, equation A2, need a reference for this equation.

Line 306, equation B1, need a reference for this equation.

Equations B3 and B4. Define $\Delta\beta^{sig}_A(r)$ and $\delta\beta^{sig}_A(r)$.