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Interactive comment

## Interactive comment on "The potential of elastic/polarization lidars to retrieve extinction profiles" by Elina Giannakaki et al.

## Anonymous Referee #2

Received and published: 14 November 2019

The authors show a study for estimating particle extinction profiles based on elastic and polarization channels from a lidar system. The data used were acquired during a field campaign in Crete. The methodology employed is well known and a direct comparison among Raman profiles and the particle linear depolarization is perfomed. While the results are quite insteresting I consider it would be necessary to stress the novelty contribution given by this paper. Apparently it is the EIEx approach but in that case I would give more detail to the description of the methodology and discuss better if using a Raman signal is a good validation method specially when concerning uncertainties of this approach. Apparently one of the conclusions is a strong dependecy on the lidar ratio value and in this context it is important to check the uncertainties involved in the process.

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Discussion paper



Section 2.4 Line 115 – Extinction Section 2.4 Line 118 – do not have Section 2.4 Line 118 – Only at a later stage, Conclusions Line 227 - EIEx

Please improve Figure 7 , Figure 8 and Figure 9 resolutions

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