Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2017-299-RC1, 2017 © Author(s) 2017. This work is distributed under the Creative Commons Attribution 4.0 License.



Interactive comment on "The Ozone Mapping and Profiler Suite (OMPS) Limb Profiler (LP) Version 1 Aerosol Extinction Retrieval Algorithm: Theoretical Basis" by Robert Loughman et al.

Anonymous Referee #2

Received and published: 1 November 2017

Global information on stratospheric aerosol extinction profiles as provided from limb scattering and occultation measurements are crucial for understanding variations in stratospheric ozone abundance in times of climate change and volcanic activity. A continuous development of retrieval strategies is required to reduce the uncertainty of the measured aerosol extinction. In their work Loughman et al. improve the existing OMPS LP algorithm that retrieves aerosol extinction at 675 nm. The new Version 1 algorithm is shown to agree well with the OSIRIS V5.07 aerosol extinction data set in the equatorial region between 2012 and 2017. In a comprehensive error analysis, common problems of current aerosol extinction retrieval algorithms are identified and well explained.

C1

Minor Technical Correction

• I would recommend using fewer abbreviations. While correctly introduced, they sometimes make it hard to read a paragraph.

Interactive comment on Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2017-299, 2017.