

## ***Interactive comment on “Stratospheric aerosol particle size information in Odin-OSIRIS limb scatter spectra” by L. A. Rieger et al.***

### **Anonymous Referee #4**

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Review of "Stratospheric aerosol particle size information in Odin-OSIRIS limb scatter spectra" by Rieger et al.

General comments: The topic of this paper, aerosol retrievals from limb viewing instrument OSIRIS, is important for the atmospheric community. Paper is well written and includes interesting and important findings. I would like to recommend this paper for publication in AMT. In the following some minor specific comments.

Detailed comments:

p. 5067, line 21: Add information about Odin altitude and local time development during the mission.

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p. 5069, Eq(1): In the exponent the notation is a little bit unclear:  $\ln(\sigma)^2$ . You mean:  $(\ln(\sigma))^2$  ?

Eqs. (3) and (6): How do you model Rayleigh signal?

Eqs. (4) and (6): You are using geometric averaging in the high altitude normalization. Please, provide some words about it.

p. 5072, line 22: Add the name of the simulation model (SASKTRAN) here.

p. 5076, lines 7-8: Please give more details. In Fig. 4 you have several cases: single/multiple scattering and different angles. The normalized eigenvalues are for what case?

Eq. (15): Are you assuming that the Rayleigh normalization free of systematic error?

p. 5083, line 13: SAGE II started in 1984.

p. 5083: Provide the version of SAGE II data you are using in this work.

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Interactive comment on Atmos. Meas. Tech. Discuss., 6, 5065, 2013.

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