

Answer to the reviewer 2.

Thank you very much for your comments.

General comments.

The asymptotic theory has been compared to exact radiative transfer calculations in my previous work (see, e.g., A. Kokhanovsky, *Cloud Optics*, Springer, 2006). Therefore, I see no point in the comparison to DISORT.

Specific comments.

1. I appreciate your comments very much.
2. The parameters have been obtained from Fig.1a (lower curve only) and used for all other curves in Figs. 1a, 1b, 1c. I hope, this answers your question on the distribution of biases. The minimization procedure was performed using the method of iterations.
3. It is correct.
4. This was done in the revised version.
5. I do not think the list of symbols is needed in such a short paper.
6. DISORT is not a competing theory because it does not have free parameters.
7.  $a_{opt}$  can be derived from albedo at one wavelength and used to predict spectral albedo.
8. I agree.
9. I consider only external mixtures in my paper.
10. I have accounted for all technical corrections suggested by you.