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Atmospheric Chemistry and Physics Discussions

Interactive comment on "The impact of aerosols on polarized sky radiance: model development, validation, and applications" *by* C. Emde et al.

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To interpret the polarization of the sky with radiative transfer modelling, it is essential to use a bimodal size distribution of aerosols. This has been shown by Boesche et al., Appl. Opt., Vol. 45, p. 8790-8805, 2006. These authors have shown that a good agreement between measurements and model simulations is only possible by a correct weighting of fine mode particles and coarse mode particles. In the current paper only monomodal size distributions of aerosol particles are used, whereas in reality aerosols mostly are bimodal. This is probably one of the reasons of the deviating model results of the degree of polarization in Figs. 12 and 13; the agreement could be improved by using bimodal distributions.

Please correct throughout the paper and in the reference list the spelling of the first two

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Interactive Discussion

Discussion Paper

authors of Boesche et al., 2006: Boesche, E., Stammes, P., ...

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Interactive Comment