

## ***Interactive comment on “A case study on long-range transported aerosols of biomass burning: effects on aerosol optical properties and surface radiation levels” by A. Arola et al.***

**A. Arola et al.**

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We would like to thank the reviewer for his/her constructive comments. Below are included all the review comments that required a response.

Figures 2, 7 and 8 are modified as suggested.

The reviewer suggested to include also a wavelength with ozone absorption in our analysis, in addition to 340nm, in order to study the enhanced absorption due to the interaction between aerosols and tropospheric ozone. This is certainly a relevant point and interesting issue to be studied. However, while we do have total column ozone available, good data for the tropospheric ozone were missing. Therefore, we consider for our study, that the analysis with shorter wavelength is not feasible, to accurately

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enough separate the effect of ozone-aerosol interaction.

- 1) The Equation 1 is modified in the revised manuscript (positive  $\alpha$  was a typo).
- 2) Unfortunately PFR was not measuring in Jokioinen during this episode.
- 3) Figure 2 and related statistics are now given as absolute differences, as suggested by the reviewer.

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Interactive comment on Atmos. Chem. Phys. Discuss., 7, 6631, 2007.

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