

Review of revised version of: *“Implementation of aerosol-cloud interactions in the regional atmosphere-aerosol model COSMO-MUSCAT(5.0) and evaluation using satellite data”*

The clarity and quantitative discussion of the results has improved significantly in the revised paper. In particular the addition of Fig. 5 has helped greatly in the discussion. Furthermore it further justifies focusing the detailed comparison on a single day of the simulated period. I can therefore now recommend the paper to be published at GMD following only minor technical/editorial comments.

Technical Comments:

- 1) P6L6: COSMO2M, COSMO2MR and COSMO-MUSCAT used here, but COSMO2MR has not yet been introduced. All acronyms are introduced again (in case of COSMO-MUSCAT and COSMO2M) on P6L18ff. Please adjust as necessary.
- 2) P9L9: Please remove or reword first sentence. The aerosol-cloud-radiation coupling is already discussed in previous sections in context of cloud optical thickness.
- 3) Fig. 5: Please relabel “overall simulations”. Suggestions: either “15-25 Feb 2007”, or “10 day period”.
- 4) Fig7: I would suggest to reword the caption to something like: “Net shortwave and longwave radiative flux at the surface and top of atmosphere for COSMO2M (a-d) and COSMO2M (e-h). Differences in radiative fluxes between the two simulations are shown in panels (i-l).