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Interactive comment on "Influence of aerosols on the formation and development of radiation fog" *by* J. Rangognio et al.

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During the revision process, authors have made severals new 1D simulations (section 5). They found some problems in the way used to coupled the activation scheme with the microphysical scheme. These numerical problems are two fold:

(i) The saturation adjustment used to coupled the activation scheme with the cloud microphysical scheme is not appropriate in case of low supersaturation (fogs). As a consequences, numerical instabilities appear at the top of the fog.

(ii) Only the radiative cooling rate is considered here to compute the source term of supersaturation. Nevertheless, the maximum of supersaturation appears in the saturated grid but the liquid water is not considered in the diagnostic of supersaturation.

The supersaturation is automatically overestimated.

After discussion with all co-author, we prefer working on a new stable (and more physical) approach to treats these problems instead of publishing uncertain 1D results. Note that these problems do not concern the results introduced in the sections 1 to 4 of the discussion paper.

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