

***Interactive comment on “Parametric representation of the cloud droplet spectra for LES warm bulk microphysical schemes” by O. Geoffroy et al.***

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Received and published: 6 January 2010

We thank the Anonymous Referee #1 for his comments.

This paper was initially prepared with a section on cloud droplet spectrum dispersion, but we realized that it was confusing and decided to focus the paper on the moments of the cloud droplet size distribution that directly reflect physical processes: rate of condensation ( $M_1$ ), light extinction ( $M_2$ ), sedimentation ( $M_2$ ,  $M_5$ ), and reflectivity ( $M_6$ ).

We however agree with the reviewer that the issue of spectrum dispersion shall also be addressed and we have prepared a second paper specifically dedicated to it, which will be submitted to the same journal very soon.

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The minor comments have been addressed following the reviewer’s recommendations:

- we replace “convective cell” by “parcel” p 17635, L13.
- we add Liu et al. (1995) to the references p 17638, L2.

References.

Liu, Y., You, Y., Yang, W., and Liu, F.: On the size distribution of cloud droplets, Atmos. Res., 35, 201–216, 1995.

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Interactive comment on Atmos. Chem. Phys. Discuss., 9, 17633, 2009.