

Interactive comment on “Testing remote sensing on artificial observations: impact of drizzle and 3-D cloud structure on effective radius retrievals” by T. Zinner et al.

Anonymous Referee #3

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General comments

This paper tries to examine the effects of drizzle drops and 3-D structure on the cloud property retrievals. The authors use results from the Large Eddy Simulation of stratocumulus and cumulus cases, and the MODIS libraries as their tool. Although I think this approach is effective and obtained outcomes (e.g. quite little effect of drizzle drops on particle size retrieval) are important, points below need to be cleared.

Specific comments

As other reviewers mentioned,

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1) comparisons with precedent studies are necessary. Please give some discussions to compare your results with, for example, Minnis et al. (2004) about the effect of drizzle on particle size retrievals. Also about 3-D effects.

2) reorganization of the manuscript is needed for more readability. The suggestion of Reviewer #2 would be very useful.

Technical correction

L7 of p1231, text says channel 20 (2.1 mm), but 2.1 mm is channel 7. Please check it.

Interactive comment on Atmos. Chem. Phys. Discuss., 10, 1221, 2010.

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