

Review of " Superparameterised cloud effects in the GCM EMAC (v2.50) -influences of model configuration"

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gmd-2019-193

Recommend: Minor revisions

General comments:

This revised manuscript focuses the diversity of precipitation and cloud optical thickness of the superparameterized model, by fixing the bug for the simulations in the first submission. The results became more reasonable and the message of the paper became clearer. I suggest publication of this paper after fixing the points indicated below.

Specific comments:

p. 9, L28, "partition": It is unclear what kind of partition is stated here.

p. 11, L41, "TRMM data": More explicitly refer to the TRMM product name as "TRMM_3B42 v7". In Sato et al. (2009,JCLI), the distinction between 3B42 and 3G68 is argued, and it is stated that 3G68 is more reliable for the diurnal cycle.

p. 15, Figure 9: In this figure, the Taylor diagram of two quantities are shown: sensible and latent heat fluxes and cloud optical thickness (COT). These two quantities are not related. The left panel (sensible and latent heat fluxes) can be removed. Instead, it would be more informative if some relation exists between precipitation and COT.

p. 18, L5-9, "Nowadays state-of-the-art global cloud resolving models provide new possibilities comparing superparameterised simulations with monthly-long high resolution models (Stevens et al., 2019).": This sentence is not suitable for this paragraph. This should be moved to the introduction.