

Editor Comments

Thanks for this revised version and for your clear and honest explanation of the performance "decrease" of CESM when it is run at higher resolution.

For me, the downscaling technique has originally been developed (and probably tuned) to compensate in part biases when CESM is run at low resolution. As you explain now well, when CESM is run at high resolution, the corrections brought by this downscaling technique are not enough to compensate the CEMS biases. This downscaling technique is particular dependent of the (fixed) vertical lapse rates used to extrapolate TT, LWD, ... to the sub-grid topography. Using other (in fact larger) values for these lapse rates when CEMS is run at higher resolution could fix in part the "decrease" of performance. If you agree with me, feel free to mention this in your conclusion.

Anyway, your paper is ready for me in the present state and could be sent to the Copernicus office for the typesetting.

Thank you, we are glad that you liked it. We feel that although the EC downscaling technique is adequate at coarse resolution, it should no longer be needed at higher resolutions. Indeed, larger lapse rates could increase runoff, but this may be for the wrong reasons and potentially lead to strange dSMB/dZ. We decided not to make any changes to the paper anymore.