



Interactive comment on “SCOPE 2.0: A model to simulate vegetated land surface fluxes and satellite signals” by Peiqi Yang et al.

Peiqi Yang et al.

p.yang@utwente.nl

Received and published: 25 April 2021

It should be noted that to compute GPP from the simulated photosynthesis, it is necessary to add the simulated dark respiration: $GPP = A_c + Rd_{param} * V_{cmax25} * LAI$. In other words, for actual GPP simulation leaf respiration should be disabled, setting Rd_{param} to 0. The difference with some other canopy-scale models is that SCOPE applies the FvCB model at leaf level (disaggregated), whereas many other models apply this model at aggregated (big leaf or sun-shade model) scales. Our hypothesis is that this results in higher required V_{cmax25} values on SCOPE compared to other models. This is an important topic, which requires a detailed investigation.

C1

Interactive comment on Geosci. Model Dev. Discuss., <https://doi.org/10.5194/gmd-2020-251>, 2020.

C2