

***Interactive comment on “Examining soil carbon uncertainty in a global model: response of microbial decomposition to temperature, moisture and nutrient limitation” by J.-F. Exbrayat et al.***

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Dear Exbrayat & co-workers,

I read the manuscript with great interest. The representation of soil carbon decomposition and nutrient limitation in models are major challenges in the development of land components of Earth System Models. Currently, the concepts used in the CMIP5 models are rather limited. Your publication is very useful to guide new developments.

What I found missing in the manuscript is an analysis of the simulated states of soil carbon for present day. A comparison with empirical data (see references in Todd-Brown et al., 2013) would help to judge the performance of the different model setups.

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In addition, a comparable analysis to the one Cox et al (2013) applied on tropical carbon stocks might also be applied to your simulations to further reduce uncertainties.

Technical comment: Some of the figure captions must be wrong.

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