

Supplement of Geosci. Model Dev., 12, 5291–5300, 2019  
<https://doi.org/10.5194/gmd-12-5291-2019-supplement>  
© Author(s) 2019. This work is distributed under  
the Creative Commons Attribution 4.0 License.



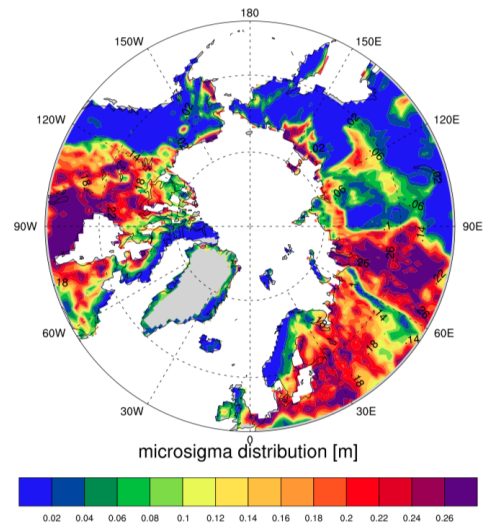
*Supplement of*

## **Ground subsidence effects on simulating dynamic high-latitude surface inundation under permafrost thaw using CLM5**

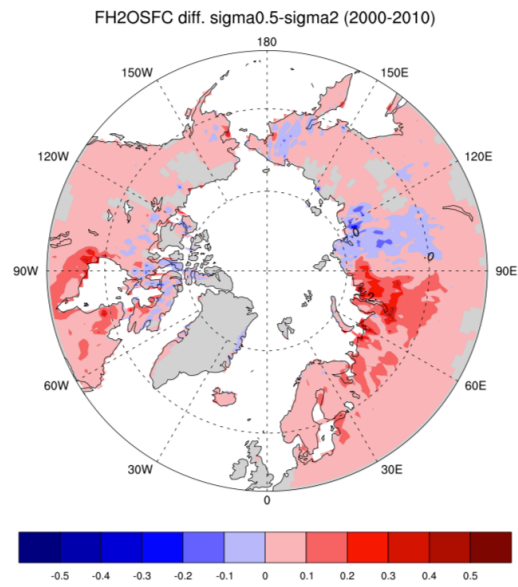
**Altug Ekici et al.**

*Correspondence to:* Altug Ekici (ekici@climate.unibe.ch)

The copyright of individual parts of the supplement might differ from the CC BY 4.0 License.

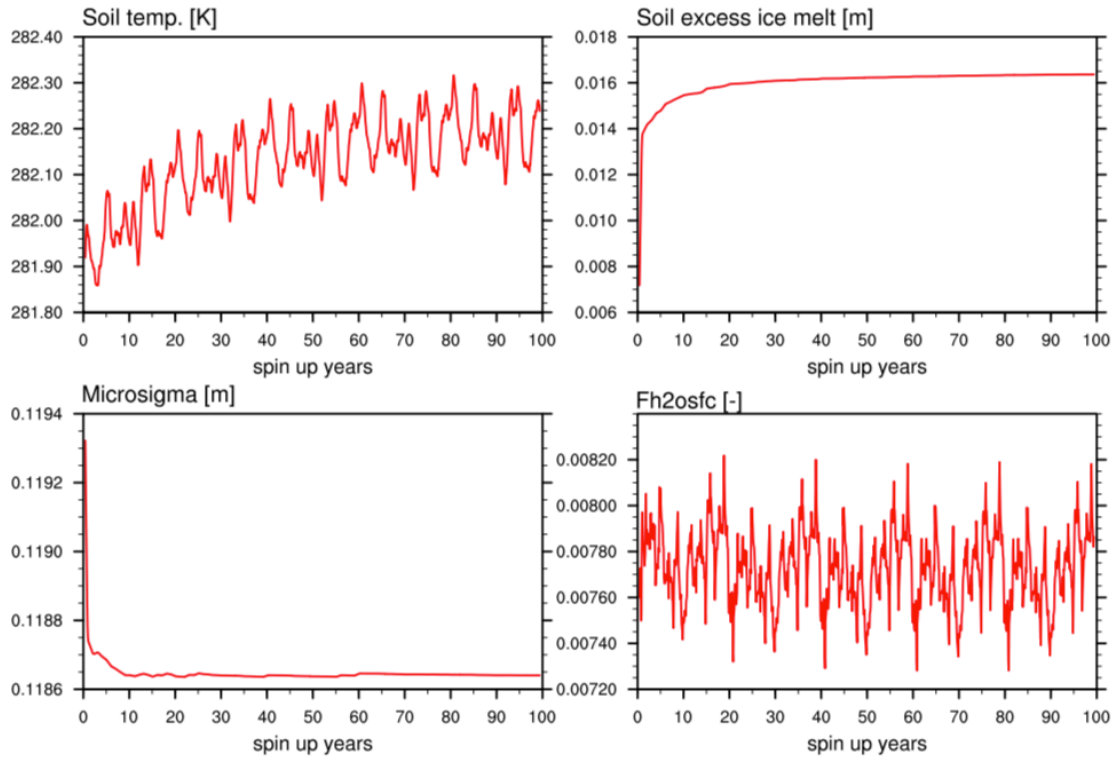


**Fig. S1: High latitude ( $>50^{\circ}\text{N}$ ) map of default microsigma distribution.**

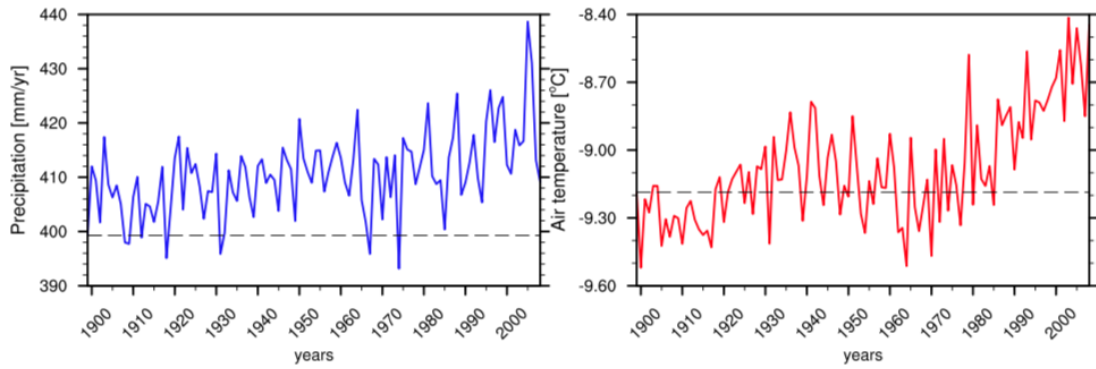


**Fig. S2: Fh2osfc difference between Sigma-0.5 and Sigma-2 experiments.**

### Spin up timeseries of soil variables



**Fig. S3: 100 year spin up timeseries of spatially averaged soil physical variables related to the new parameterization.**



**Fig. S4: Timeseries of high latitude (>50°N average-land only) CRUNCEP precipitation and air temperature forcing for the period 1900-2010. Dotted lines show 1900 value.**