

Review of the revised manuscript in Geoscientific Model Development:

SaLEM (v1.0) – A Soil and Landscape Evolution Model for simulation of regolith in periglacial environments

This manuscript is dealing with a new concept for dynamic modeling of parent soil material and periglacial layers by the parameters of different bedrock material and climate conditions. This is the first step of an innovative modelling approach to delineate soil texture in areas of higher latitude. This research represents the state of art for digital soil mapping and therefore meets the subject of the journal Geoscientific Model Development and needs to be published. In my opinion, the scientific output is well and the manuscript has in an accurate structure and adequate content. However, after carefully reading the manuscript I found some small mistakes and several sentences, which should be rearranged. That's all.

Detailed comments:

Page Line: Comment

P1 L30	composition, porosity
P2 L6-L9	Very long sentence, please make 2 of it
P 3 L11	Pilot project, yes but pilot area ?
Figure 1:	.. according to Ehlbrecht (2000)
P 5 L16	.. which consists of sequences ..
P5 L17-18	No complete sentence: Partly as insular very thick resources can be found
P6 L16	.., which is considered ..
P6 L28	(Frechen et al. 2003)
P7 L22	The average period shown
Figure 3:	Kalnay et al. (1996)
P9 L6	50 m
Figure 4:	.. from Ehlbrecht (2000)
P13 L11	Sentence: Results on thickness of regolith are available achieved via simulation of processes ...(?)
Figure 9:	.. showing the distribution of regolith ..
P15 L5	Maybe better ?: .. the validation of the model results is challenging.
P15 L12	100 cm
P15 L12	Maybe better ?: .. which cannot drill deeper into the soil.
P15 L13	.. process areas separately ..
P18 L31	Maybe better ?: .. spatial pattern of loess accumulation rate, ..