Review comments on hess-2019-514, entitled, "The role of liquid water percolation representation to estimate snow water equivalent in a Mediterranean mountain region (Mount Lebanon)".

The paper investigates the spatial distribution and evolution of the snow water equivalent (SWE) during three snow seasons (2013-2016) in the coastal mountains of Lebanon. A recent upgrade of the liquid water percolation scheme in SnowModel, which was introduced to improve the simulation of the snow water equivalent (SWE) and runoff in warm maritime regions was evaluated. The performance of the model was evaluated against continuous snow depth and snow albedo observations at the AWS, manual SWE measurements, and MODIS snow cover area.

Chapter 3.3: SWE estimation is very important as the main focus of this paper. But this chapter written very shortly. It would be good to make it more detailed like "how to estimate the evolution of SWE over the three basins were done using the model outputs and etc.?

How manual SWE measurements are conducted, what instruments are used?

In chapter 4.1: It is said that "Figure 3 compares the observed and modelled SWE evolution using both SnowModel configurations. The Pflug et al. (2019) model provides a better simulation of SWE during the melt season in CED and MZA. At LAQ, both models are positively 175 biased." I am not sure this is totally true. It seems that it is true for year 2016 but not for 2015!!! It is important to discuss this why it is like that any reasons? Why model works better for 2016 not for 2015?

What is the purpose of comparing snow depth measurements in Figure 4? This should be explained. Same thing is valid for SCA. What is the purpose of this comparison in terms of estimate SWE in this paper?

In generally I found this paper focuses on comparison of the performances of default model and the model with upgrade of the liquid water percolation scheme. Either title should be modified or focus should be more on the estimation of SWE in Mount Lebanon.