I would like to thank the authors for the improvements made in the manuscript. It is much more clear now. Below are a few minor comments arising from the new text. Due to the introduction of a significant amount of new text, there are quite a few English issues. I have noted a few in the Intro but not the remainder of the manuscript – this should be addressed before publication.

Line 6: I feel like it is a little misleading to describe the simulations like this since the software used a radius probe to find pores as opposed to an experiment where water is actually introduced and removed.

Line 10: “describe” instead of “reproduce”?

Line 10: remove “and” after “drainage”

Line 28: hysteretic instead of hysteresis?

Line 31: “have been” instead of “were”

Line 33: such as

Line 55: sizes

Line 63: Defining the saturated and residual water contents based on drainage and imbibition processes is a little confusing in my opinion because these values depend on the experimental conditions. Maybe just adjust with what you have in Lines 245?

Line 71: “To date, no estimates of the shape parameters of the VG model have been presented for imbibition in snow.” I think it may be more accurate to say that no parameterization specific to imbibition exists. While no one has provided a complementary study such as Yamaguchi2012 for imbibition, Adachi2020 showed that n did not change between wetting and drainage, and captured hysteresis with the alpha ratio.

Lines 108-110: this sentence has too many commas and is confusing

Line 115: of instead of in

Line 117: remove the

Line 135: between commas is wrong/weird

Line 189: dash formatting seems wrong

Line 194: I am confused by step (ii). Should this be the same as for imbibition but with reversed NWP and WP?

Eq 9: This was already defined?

Line 249: effect of

Section 3.1.1: Maybe discuss this later where you quantify the hysteresis in 3.1.3? or at least make it clear that there will be more discussion below.

Fig 8: it is a little confusing that both fits aren’t in both plots.

Line 327: care to propose a reason why the ratio is smaller for snow?

Line 367: I disagree with this statement: “This division is probably due to the fact that the denser snow samples, composed of MF grown under conditions of liquid water saturation, show large

pores which can hold little water by capillarity." I think it is due to the fact that it is easier for pores to be cut off during drainage in the less dense samples.

Fig 9: it is interesting that slope of your imbibition curve matches the drainage data more than your drainage curve for Sample 1 MF.

Eq 11 and 12 were already defined?

Fig. 11: why do the models overestimate the hydraulic conductivity?

Fig. 14: add (a) to the left plot.

Line 620: none of these headings are shown.