

Dear Authors,

You have addressed all my questions and concerns from the first round of review – I sincerely thank you for that and find your manuscript much improved. I have some further minor comments:

Introduction

Some further elaboration is worthwhile. Readers need to understand why modelling snow is challenging, and why wet snow is even more so. Sayers 2021 models with diff. effective medium scheme the V_p and V_s dry snow using two phases: ice and air. If one were to model wet snowpack, one would further need to consider effects of partial saturation, another can of worms (for example O'Connell and Budiansky 1974 looked at partial saturation). In addition there would be critical conditions whereby snow would change its behaviour from grain-supported to fluid-supported. It is important to explain the complexity of snow in this regard, and the challenge it presents itself to theoretical models (as you mention in discussion the 3-phase model)

Line 103-113

Would benefit from a diagram, showing layers with properties A/B vs. layers with identity settled/fresh (which I understand from your description that they are different). Do I understand correctly that some of the HN48 has properties of A and some of B?

Line 263 increase in mass and also density?

I propose minor changes to your submission.

Congratulations on your manuscript.