

I reviewed the author's response and revised manuscript of the Penny et al. submission. The review comments were comprehensively dealt with, and resulted in a great number of changes to the manuscript.

I was glad to see that the authors adapted the framework of the manuscript and that the multiple-hypotheses approach is now worked better into the manuscript. They added statistical tests to their work, as well as uncertainty estimates, which convinced me of the validity of their story. I also think that the comparison using two different precipitation distribution methods is a good addition, that will be of interest to future readers.

A few minor comments:

L352 Should this be related to? (instead of related with)

Fig. 1 Caption: I assume that green means no water or snow at the surface? Perhaps mention that directly in the caption.

Fig. 5 Caption: Please add the meaning of S, M and L in panel b to the caption.

Fig. 10: Why are there different types of vegetation (?), the green shapes on the hillside. It is not clear to me which different vegetation types (?) these symbols represent. Making that more explicit in the figure or caption, or homogenizing the symbols would be helpful.

Fig. S11, does 'cumec' stand for cubic meter per second? I have never seen this unit description before, and I'd suggest changing it to m^3/s .