

Interactive comment on “Near-surface permeability in a supraglacial drainage basin on the Llewellyn glacier, Juneau Ice Field, British Columbia” by L. Karlstrom et al.

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Page 5288, lines 27-28: unclear if you are relating observations here or just an assumption for the mathematical model.

By the way, the scenario considered here and represented by equation 1 is, I believe, well known in the literature on irrigation. You could probably consult that literature and just cite solutions.

Equation 3: define h_0 and explain how you went from the Dupuit equation to this linearized form.

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Page 5290, line 8: porosity was estimated? Or assumed?

Page 5291, line 6: dimensions given for diffusivity are wrong. But more broadly, I don't follow the discussion here. Why is a thermal diffusion time scale corresponding to stream DEPTH relevant? I would have thought stream temperature reflects an advective/diffusive balance in the streamwise sense.

Page 5291 bottom and page 5292 top: I don't follow the argument here. Please present the mathematical model that you are working with to get temperature. Page 5292 lines 2-3: What is the reference to “pore pressure diffusion timescale of supraglacial channels” supposed to mean?

Interactive comment on The Cryosphere Discuss., 7, 5281, 2013.

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