

Dear Editor,

Thanks for the additional corrections suggested. Here a summary of the last corrections we implemented before sending our final paper version:

Editor: line 99: elevation

Authors: Modification done

Editor: line 101: To my experience melt season is the more familiar term.

Authors: Modification done

Editor: line 120: A slope of 0.34% corresponds to an elevation difference of only 1.8 m along the 540 m long channel. Is that correct? it seems more than that in Fig. 1d?

Authors: Indeed, we probably did this mistake by taking only the shorter upperpart of the channel in the calculation. The slope between P5 and P1 is 0.72% (3.33 m of elevation for 464.4 m of distance). We implemented this new slope value.

Editor: line 134: The more common units for thermal conductivity are $W\ m^{-1}\ K^{-1}$

Authors: We did the modification, and we also added "K" instead of "°C" for the other units to respect the S.I standard (example: the specific heat capacity of water) and make the text more consistent. Note that we kept "°C" for absolute measurement of temperature.

Editor: line 165: record

Authors: Modification done

Editor: line 359: indicates

Authors: Modification done