

Interactive comment on “Influence of surface heterogeneity on observed borehole temperatures at a mountain permafrost site in the Upper Engadine, Swiss Alps” by S. Schneider et al.

Anonymous Referee #1

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This paper is an important contribution to our understanding of subsurface temperatures at different mountain permafrost sites. The paper is well structured and written. I have only a few minor suggestions.

Title: Rethink if the term "surface heterogeneity" is appropriate in your title. The paper is basically dealing with subsurface conditions. Most figures and almost all your scientific explanations are highlighting temperature variations below the surface. I suggest to change the term into "surface and subsurface heterogeneity...".

Abstract: write TTOP-concept in full letters when using the acronym for the first time
page 2630, line 25: "Permafrost degradation in bedrock is caused by frost weather-
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ing..." This statement is not correct, but the change of phase of water in bedrock from liquid to solid and vice versa plays a critical role rock strength reduction (Harris et al. 2009). Please rewrite this paragraph.

Interactive comment on The Cryosphere Discuss., 5, 2629, 2011.