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Interactive comment on "How much snow falls in the world's mountains? A first look at mountain snowfall estimates in A-train observations and reanalyses" *by* Anne Sophie Daloz et al.

Anne Sophie Daloz

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Dear Jean-Baptiste,

Thank you very much for your positive and constructive comments. They are very helpful. I will answer the different comments you have at this end of the process but I wanted to answer some of them now.

1) About the maps that are not analyzed enough. Thank you very much it is a very good point especially since the idea of this article started by seeing some very large differences in the different datasets in some specific regions (e.g. South America) and

wondering if the differences were "global". So, yes we will definitively comment more some cases or regions and add more analyses in this section of the article.

2) About the confusion with the "fraction of mountain snowfall" and the suggestion to use "the proportion of snow that falls in the mountains compared to the continent as a whole", that's a very good point. It was difficult to name the different variables, it changed a couple of times in the different versions of the paper and we tried to come up with a short name but if it is not clear for the reader it does not work. So I will work on this in the new version of the paper.

3) About the hypothesis on large-scale versus small-scale, thank you very much. And I think we were at least partly thinking about the differences induced but the different parameterizations to explain the differences in small-scales but we need to be more clear about this hypothesis in the new version of the paper.

Anne Sophie.