

## ***Interactive comment on “Performance of snow density measurement systems in snow stratigraphies” by Jiansheng Hao et al.***

**Jiansheng Hao et al.**

lilh@ms.xjb.ac.cn

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We are very grateful to your critical comments and thoughtful suggestions. Those comments and suggestions are all valuable and very helpful for revising and improving our paper. We apologize for the confusion generated by original version of the manuscript and sincerely hope that our logic is now easier to follow with this revised version. We revised the logic, and reorganized and rewrote both results and discussion sections. The logic of new version: The average density from gravimetric permittivity measuring systems was defined as the reference truth value in this study. Then the data characteristics of various snow stratigraphies from gravimetric and dielectric permittivity measuring systems were analyzed. Performance of gravimetric and dielectric permittivity measuring systems and error analysis in various snow

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stratigraphies were discussed. Take gravimetric measuring method as the standard reference method, the precision and accuracy of dielectric permittivity measuring systems were compared. We completely rewrote both results based on the new logic and reorganized discussion sections. You will find new version in supplement.

Please also note the supplement to this comment:

<https://gi.copernicus.org/preprints/gi-2020-14/gi-2020-14-AC4-supplement.zip>

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Interactive comment on Geosci. Instrum. Method. Data Syst. Discuss.,  
<https://doi.org/10.5194/gi-2020-14, 2020>.

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