Hydrol. Earth Syst. Sci. Discuss., 9, C5178-C5179, 2012

www.hydrol-earth-syst-sci-discuss.net/9/C5178/2012/ © Author(s) 2012. This work is distributed under the Creative Commons Attribute 3.0 License.



HESSD

9, C5178–C5179, 2012

Interactive Comment

Interactive comment on "Applying a time-lapse camera network to observe snow processes in mountainous catchments" by J. Garvelmann et al.

J. Parajka (Referee)

parajka@hydro.tuwien.ac.at

Received and published: 7 November 2012

General comments

This study demonstrates the application of numerous digital cameras used to observe snow cover characteristics in the mountains in Germany. The authors present a simple setup and methodology applied for observing different snow cover characteristics. They conclude that the time-lapse photography is an appropriate technique to observe spatial and temporal snow cover variability.

The study is interesting and within the scope of the journal. The application of a large number of digital cameras for snow cover monitoring is interesting and the experience Full Screen / Esc

Printer-friendly Version

Interactive Discussion

Discussion Paper



and results gathered might be very useful for many different applications. However I also agree with the previous review, that the traceability of results is difficult and some more clarifications about the applied methodology (i.e. image analysis) is needed. Additionally, I would suggest to emphasize and present in more detail the lessons learned by such distributed sensing. The authors installed and maintained a large number of cameras, so it would be very interesting to know and quantify the problems and challenges - when, where and how it was difficult/easy, if there were some problems clustered in some areas/time periods, etc. E.g. how many photographs were useless, how often and where the snow fall, frost, fog reduced the available images, etc.

Specific comments

- 1) Image analysis, p.10692, I.10-15: Please provide more details (i.e. how it was calculated, how many images were discarded, are these clustered in some specific locations, etc).
- 2) Albedo estimation: Why only 8 stations?
- 3) Discussion: Some statements are not justified by the results presented: Please consider to quantify the number of gaps/specific problems of the data analysis and to relate them to some physiographic settings, if possible.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 9, 10687, 2012.

HESSD

9, C5178-C5179, 2012

Interactive Comment

Full Screen / Esc

Printer-friendly Version

Interactive Discussion

Discussion Paper

