

Interactive comment on “Cloudiness and snow cover in Alpine areas from MODIS products” by P. Da Ronco and C. De Michele

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The study proposes and evaluates a new multi-steps method for cloud elimination in MODIS snow cover images. The methodology is based on combining and modifying existing approaches for cloud reduction and it is tested over Po river basin (northern Italy) in the period 2003-2012. The results indicate that proposed procedure improved cloud reduction and mapping accuracy with respect to given validation procedure and case study region.

Overall, the topic is interesting and within the scope of the journal. However, manuscript needs to undergo important revision before recommending for publishing. I agree with the referee #1, that the introduction does not provide a balanced context for the re-

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search objectives. Research questions and substantial novel contribution should be very clearly indicated. I would suggest to revise the structure as well, presenting methodology first in a separate section, then case study data description. Please consider to include the accuracy assessment (equations) into methodology. In order to increase the contribution, I would suggest to more clearly demonstrate the efficiency of new steps in comparison with methods already published. This is essential for providing substantial new contribution. For example, showing the improvements of accounting different aspect classes in the snow line step or a typical 2-day filter with respect to step 2. The justification of the sequence of steps is not very clear. I agree that the validation methodology could be designed in more balanced and robust way.

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