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Atmospheric Chemistry and Physics Discussions

Interactive comment on "Effective UV surface albedo of seasonally snow-covered lands" *by* A. Tanskanen and T. Manninen

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The paper concerns an important scientific problem, the influence of snow cover on UV surface albedo for various land surfaces.

It is clearly written and easy to read. The description of the method is very brief, but it is unfortunately the usage nowadays.

My main criticism is that the number of test sites is rather small, especially for some terrains, but it is probably difficult to find more sites corresponding to the rather strict criteria.

Croplands have a different behaviour than other surfaces (figure 3). If one looks at the map (figure 1) it appears that these croplands are mostly located at lower latitudes

(warmer countries) than the other lands, and in somewhat populated areas. Could it be possible to relate this behaviour to the type of snow: smaller depth, small scale variations of snow cover, variable pollution of the snow ?

Specific comments.

P.1, column 2, lines 12-13, the brackets are misplaced.

P.2, column 1, line 6, "Kylling and Bernhard, 2001" should be " Kylling and Mayer, 2001".

P.2, column 1, sentence before last :"various snow covered land cover types" is ackward.

P.3, column 2, 11 lines before bottom "were" used.

References, in Smolskaia et al., replace "Colette,B." by "Brogniez,C." (Colette is first name).

Interactive comment on Atmos. Chem. Phys. Discuss., 7, 2873, 2007.