

Interactive comment on “Effect of small-scale snow surface roughness on snow albedo and reflectance” by Terhikki Manninen et al.

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The reflection of light from snow surfaces is influenced by light scattering within snow layer and also by snow surface roughness. Usually the snow BRDF is studied using the radiative transfer theory for plane - parallel media and effects of surface roughness are ignored. The authors of this work propose a technique, which can be used to study the effect of small-scale snow surface roughness on snow albedo and reflectance. The paper is sound and can be published subject to minor revisions. My comments are as follows: 1). line 60: snowpack, 2)Eqs. 1, and 2: please, give more explanation on the meaning of x and L , 3), 3) line 166, remove '!', 4) Eq. (7): define all variables, 5) please, check out the style of references (see, e.g., p.27), 6) Fig.9: please, explain the minimum around 500nm for the case of April 22, 2009, 7) Figs. 8, 13: please, write

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'broadband albedo' and not albedo along axis OY, 8) Please, improve figure captions (e.g., you need to give units in Figs.14, 16).

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