

***Interactive comment on “Application of asymptotic radiative transfer theory for the retrievals of snow parameters using reflection and transmission observations” by H. S. Negi et al.***

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The authors state on page 1247, line 18 ff, how they measured snow grain size. It is well known that traditionally measured grain size is of little value to derive optical grain size (e.g. Painter, 2007). Optically equivalent grain size must therefore be measured either by gas adsorption, stereology or tomography. The authors also later state (p1250, line 4 ff) that their measured grain size is indeed a problem. This would mean that essentially the entire paper is "l'art pour l'art", a pure simulation experiment with little experimental support.

Painter et al. Contact spectroscopy for determination of stratigraphy of snow optical

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grain size. J Glaciol (2007) vol. 53 (180) pp. 121-127

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Interactive comment on The Cryosphere Discuss., 5, 1239, 2011.