

Interactive comment on “Effects of snow grain shape on climate simulations: Sensitivity tests with the Norwegian Earth System Model” by Petri Räisänen et al.

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The authors conducted a series of sensitivity simulations using the Norwegian Earth System Model to quantify the effects of snow grain shape, which could improve the understanding on the role of snow grain shape in climate modeling. For the authors' information, a very recent study (He et al., 2017) did a detailed analysis and parameterization to account for snow grain shape effects on optical properties of both clean and dirty snow, which could be cited and discussed to improve the discussions in the manuscript.

Reference: He, C., Y. Takano, K. Liou, P. Yang, Q. Li, and F. Chen, 2017: Impact of

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Snow Grain Shape and Black Carbon-Snow Internal Mixing on Snow Optical Properties: Parameterizations for Climate Models. *J. Climate*, 0, <https://doi.org/10.1175/JCLI-D-17-0300.1>

Interactive comment on The Cryosphere Discuss., <https://doi.org/10.5194/tc-2017-118>, 2017.

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