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# *Interactive comment on* "Healing of snow surface-to-surface contacts by isothermal sintering" *by* E. A. Podolskiy et al.

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[12pt]article

**Review TCD-8-2465-2014, June 2014**

This manuscript deals with the evolution of shear strength of snow interfaces as a function of sintering time and normal pressure. It could be shown that the interfacial strengths increased rapidly, especially in the first four hours of sintering. The strength increase could be fitted with a power law with a mean exponent of about 0.21. Higher pressure lead to higher sintering rates. The author's measurement results are consistent with previous findings using different experimental techniques and provide important input parameters for slope stability models.

**General remarks:**

The work presented within this paper is thorough and exhaustive. The data analysis seems well done and the presentation is clear and well understandable.

**Detailed remarks:**

p. 2470, l. 5 ff: The distinction between normal pressure $\sigma_n$ and normal load $\sigma_c$ probably needs some more clarification, since it is important for understanding the rest of the paper. I would suggest to spend a few more sentences on explaining what exactly $\sigma_n$ and $\sigma_c$ is, and what the difference between the two is.

p. 2471, l. 9-10: Well, it is somewhat clear that the dashed lines show only increasing trends if you sort out all other measurement. I suggest to reformulate.

p. 2475, l. 1: sample splitting

p. 2476, l. 20 ff: Some capital letters stumble around in the text where there shouldn't be any. (specific Surface, DUal, etc. )