

## ***Interactive comment on “Weak layer fracture: facets and depth hoar” by I. Reiweger and J. Schweizer***

### **Anonymous Referee #1**

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The paper is very interesting and deserve the publication. It covers a subject of deep interest in the field of avalanches; the results presented are essential to model slab avalanches.

The paper is ready to be published but some questions should be addressed.

- 1) The description of the weak layer should be improved. It is not clear, but it is probably specified in other papers of the Authors, how it is obtained.
- 2) The loading of the specimen should be described in details. For instance, the loading device applies a normal and tangential load that are proportional one to the other and the same applies to the loading rates. Is it correct?
- 3) Reference at line 25, page 1915 (Bazant et al., FRAMCOS 2004) should be changed

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with a journal paper (generally easy to find).

- 4) A figure plotting strength vs. slope angle for different loading rates should be added to clarify the experimental results.

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Interactive comment on The Cryosphere Discuss., 7, 1907, 2013.