

Interactive comment on “Testing a failure surface prediction and deposit reconstruction method for a landslide cluster that occurred during Typhoon Talas (Japan)” by Michel Jaboyedoff et al.

Anonymous Referee #1

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This paper presents the capability of the Sloping Local Base Level (SLBL) method to provide models of the 3D failure surfaces of landslides based on digital elevation models, as well as to reconstruct buried valley topographies and landslide deposit surfaces.

The proposed method has been tested on 5 deep-seated landslides that occurred during Typhoon Talas, which hit Japan in August 2011.

The topics covered in this paper are extremely interesting for those involved in landslide practice, since landslide volume estimation is very often a challenging task, and its fast and accurate estimation is fundamental for the definition of reliable risk scenarios, especially in emergency conditions.

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In the manuscript different procedures and steps are proposed to assess the volumes, the failure surface and the palaeotopography. Although these are generally well explained, they seem not to be easy to apply, as the elaboration output are very sensitive to some parameters that need to be assumed by the users. For example, the Authors adjusted several times the tolerance parameter 'C', in order to obtain the desired results.

The application to the 5 case studies is very interesting, and it allows comparing the different elaborations depending on the characteristics of the investigated phenomena. The discussion of the results is clear and well organized.

For these reasons, in my opinion, the paper is worth to be published.

Minor remarks about images:

Sometimes the font size within the figures is too small. Please, enlarge it, to make the images more legible

Figure 8 is not clear and legend is missing

Interactive comment on Earth Surf. Dynam. Discuss., <https://doi.org/10.5194/esurf-2018-61>, 2018.

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