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Nonlinear Processes in Geophysics
Discussions
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Interactive comment on "Size distribution law of earthquake-triggered landslides in different seismic intensity zones" *by* Yidan Huang and Lingkan Yao

Anonymous Referee #2

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General comments The manuscript shows the result of size distribution law of earthquake-triggered landslides in different seismic intensity zones. The research is useful for regional scale landslide hazard and risk assessment. However, much effort should be done to clarify or deepen the obtained results.

Special comments 1.From the title and the abstract, I thought the objective of the paper was to find the distribution law between size and frequency of landslides triggered by earthquake with different intensities. However, the paper structure should be well managed considering three ways (inventory data, computer simulation and physical experiment) in the paper. 2. Landslide inventory data in the paper is not clearly clarified.

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The process and existing uncertainties in image interpretation for landslides should be explained. How did the authors deal with the connected landslides which are common in Wenchuan earthquake events and difficult to be separated? The author states the phenomena in lines 160-161, but without any other words later. 3. The distribution law of volume (depth)-frequency and area-frequency is obtained and shown in Table 1 and Table 2. The results are from the same triggering events but the number of the samples shown in the tables is not the same. Why? 4. Equation 1 is wrong. 5. Please explain the matching ability of the physical experiment with the real earthquake events, such as in terms of the peak acceleration in experiment and seismic intensity in Table 2-3.

Technical corrections 1. Grammar mistake exists in the paper, such as Lines 30-34, Line 211. 2. The quality of the figures need to be improved. 3. The unit of the parameters in Line 234 and Figure 4-5 is not clear. 4. The language needs to be improved.

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