

Interactive comment on “Study on the combined threshold for gully-type debris flow early warning” by Jian Huang et al.

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Huang et al. (2018) explored the combination thresholds (pore pressure and rainfall) for gully-type debris flow in Wenjia gully, China. A three-level early warning system is presented and applicable to the real-time debris flow warning. The topic is certainly of interest for the readership of Natural Hazards. However, the overall quality of the manuscript is poor in presentation. The main problem is the lack of a clear discussion of the contribution of this work. Detailed comments are listed below:

1. The Introduction section is not well organized, which makes readers confused about the real relevant background information and its relationship to your topics.
2. Table1: What is the time period of the accumulated precipitation? The conclusion

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that the number of debris flows decreases with time is hard to read from the table. Instead, a figure of trend line will be better.

3. Some contents of Section 3.1 and Section 3.2 are unlikely to belong to Methodology, they are more like data sources and results, and should be re-organized.

4. In Fig 7, it is not convincing that only one record exceeds the threshold, besides, is the location of the debris flow matched with SY01? It is necessary to specify the locations of debris flow events and monitoring sensors. How about other two debris flow events that have detailed records (you mentioned there are three debris flow events with detailed pore pressure monitoring data).

5. In Fig 8, as only several rainfall events are used to validate the proposed results, the readers will seriously doubt these statistical-based conclusions.

5. Line 229-236: 8 rectangular points with debris flow means the rainfall event with debris flow, should the magenta points also belong to this group? And the blue points also belong to the triangle group? It is confused. Why there is only 5 points? only 5 rainfall events have the pore pressure information? The analysis of Fig 8 is not clear enough to obtain the final conclusion (the rainfall threshold and pore pressure threshold need to be combined) and needs to be improved.

6. Line 263-266: it would be better to show the changes of rainfall and pore pressures for the two rainstorms in 2014 you mentioned, like the small circular magenta solid points in Fig 9.

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