

## ***Interactive comment on “A preliminary study on the comprehensive threshold for debris-flow early warning” by X. Xue and J. Huang***

### **Anonymous Referee #1**

Received and published: 27 May 2016

I have read and evaluated the manuscript "A preliminary study on the comprehensive threshold for debris-flow early warning". Unfortunately, I did not find it suitable for publication in Natural Hazard and Heart System Sciences.

Below, some comments that may help the authors to improve their work before submitting it to other journals, more suitable to publish preliminary works like this one.

- Please, number the lines.
- English needs to be improved
- It is not clear to me what "comprehensive" means when it is referred to a rainfall threshold.
- The approach is too simple to be published in a top-rank journal as NHSS. It is very

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simple with respect to the current state of the art of both empirical rainfall thresholds and physically based approaches.

- The introduction is very focused on China, discouraging the interest of a possible international audience.
- FIG 7: the way the line is drawn is very subjective and it is not supported by evidence. A threshold like  $I = 0.17R + 20$  could be valid as well. Or even better, from a purely graphic point of view.
- In the manuscript there is a threshold linking I and E (rainfall parameters) and a series of threshold values of U. It is not clear to me how these two different aspects (rainfall parameters and U) are linked together in the analysis and in the procedure of forecasting. They appear to stay disjointed.
- The test is represented by a SINGLE event that DID NOT trigger debris flows. This is not a good test: it does not support anything. Moreover, the threshold was exceeded (fig. 8).

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Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., doi:10.5194/nhess-2016-149, 2016.

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