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## **NHESSD**

Interactive comment

## Interactive comment on "A Hydrologically Based Model for Delineating Hazard Zones in the Valleys of Debris Flow Basins" by Kaiheng Hu et al.

## Kaiheng Hu et al.

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We are thankful for the referee's valuable comments that are very helpful to improve our MS substantially. We are also delighted to see that the basic ideas of our methodology are appreciated by the referee. Our aim, as pointed out by the referee, is to extract debris-flow hazard zone in the case of no sufficient hydrological information. We used the term of "hydrologically based" to reflect the content of basin hydrological analysis and simple hydrological relationship. But, with the comments, we realize that the term may be easily misunderstood as regular hydrological model such as infiltration, rainfall, water balance etc. We think "geomorphological/topographical" cannot fully depict our proposed method even though key elements of our method are related to DEM. We try to find a better term for our approach.

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Discussion paper



We do not want to go through all the comments. We will take them very seriously in our next research. The most important is we agree with the referee that our model needs more scientific proof and cases to support. We are going to apply published cases, numerical models and even real hydrological models to validate/calibrate /evaluate our approach. We hope our works can be accepted by scientific community of natural hazards after great effort.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., doi:10.5194/nhess-2016-13, 2016.

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