

## ***Interactive comment on “Classification and susceptibility assessment of debris flow based on a semi-quantitative method combining of the fuzzy C-means algorithm, factor analysis and efficacy coefficient” by Zhu Liang et al.***

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Received and published: 2 March 2020

First of all, thank you very much for your suggestions, which are very helpful to improve the quality of the article. Then we will answer your questions and comments one by one. (1) Although the language in the thesis has been polished by relevant institutions, there are still some grammatical errors or unclear expressions. We will proofread repeatedly to enhance the readability of the article. Similarly, there are some human factors in the article, and I apologize for our lack of seriousness; (2) There are many formulas involved in this article. Regarding the writing specifications and expressions of formulas, we will

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refer to more literature. In addition, after discussions and suggestions made by other researchers, we will also streamline some of the formulas, leaving only those formulas that are important and meaningful; (3) The ideas you provided have some discussion significance. One of the disadvantages of fuzzy C-means clustering is that the number of cluster centers is not determined, so it can be determined based on experience before use. But this paper introduces related formulas to improve the accuracy of classification, thus avoiding blindness. This should be added to the discussion and conclusions; (4) we will explain term membership values and cite paper or book of Lotfi Zadeh; Thank you again for the valuable suggestions. Yours best wish

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Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2020-5>, 2020.

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