

## ***Interactive comment on “Comprehensive evaluation of high rocky slope safety through an integrated analytic hierarchy process and extension matter model” by H. Z. Su et al.***

### **Anonymous Referee #2**

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This manuscript studies some key problems and presents a case analysis of slope safety evaluation by some mathematical methods combined. The manuscript proposes an approach of comprehensive evaluation for slope safety. The proposed method consists of a systematic integration of several techniques, such as analytic hierarchy process, extension matter element and entropy. The proposed method has a high potential for other similar applications. Overall, I recommends the publication of this paper, after the suggested improvements properly addressed. <1>P7: In Equations (1) and (2), it will be more clear for the readers that one index is illustrated for ‘the index values with the larger the better tendency’ and ‘the smaller the better index value under different levels’, for instance, ‘the index values with the larger the better tendency, such

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as...’ and ‘the smaller the better index value under different levels, for example...’. <2>P14: Check Equations(23)~(24). <3>P18: In Section ‘5.2 Final safety evaluation’, ‘The safety state of grade slope is  $\hat{a} \hat{e} \hat{c}$ , which is fully consistent with the present situation that the high rocky slope...’. However, the present situation of the high rocky slope is vague, which is advised to be supplied. <4>The paper described ‘An integrated Analytic Hierarchy Process-Matter Element Analysis-Entropy Weight method for solving multiple criteria decision making problem has been proposed...’, while the title only covered analytic hierarchy process and extension matter model.

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