

## ***Interactive comment on “Risk Zoning of Typhoon Disasters in Zhejiang Province, China” by Yi Lu et al.***

### **Anonymous Referee #1**

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This study presents the risk mapping of Typhoon disasters for a case study in Zhejiang, China. Such a study is of interest. However there are so many unknown issues in this manuscript, making it not readable. It is necessary to present , especially the mothology, in a much clearer manner. 1. In the "2. Study Area" section, it is better to give a background introduction of typhoon disasters in the study area; otherwise, it is not unstoodable why you use Zhejiang Province as a case. 2. For the meteorogical data, how many stations are there in Zhejiang Province? The authors said 2419 stations provided by NMIC; it is not clear if they are distributed throughout China or only in Zhejiang province. It needs to be clarified. 3. Canonical Correlation Analysis is the main tool for this study, which is however not introduced to readers at all. It is necessary to give an introduction of this method and how it is applied in this study. 4. In

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Section 3.2.4, it is necessary to introduce how the so-called SoVI is used to calculate the population vulnerability index. 5. The data source of typhoon disaster losses? 6. How is "typhoon rainstorm" defined? Its probability is an important issue in this study. How the probability is determined? It is not introduced at all. 7. In Eq(1), it is not clear how population and economic loss are both included. Only for population or economic loss? Why in the form of "Ax+By", not a "multiplying" form? 8. P12L205, it says, after "performing factor analysis"..... How is the factor analysis performed? In the title of Table 3, principal component analysis is mentioned. How is the principal component analysis performed? Factor analysis is the principal component analysis? If these methods are used, they need to be introduced in the methodology section. 9. In Table 4, the derived disaster risk index are divided into 5 grades. How are the thresholds are determined? It is not mentioned.

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