Natural Hazards
and Earth System
Sciences
Discussions

Interactive comment on "Study on monitoring and numerical analyses of groundwater variation and inclinometer displacement induced by heavy typhoon rainfall" *by* Ching-Jiang Jeng and Chia-Yu Yang

Anonymous Referee #2

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This manuscript is aimed to find the relationship between typhoon rainfall, slope groundwater level and the displacement of the slope by monitoring data analysis and numerical analysis. This topic would be potentially interesting for the journal NHESS. However, the organization of the manuscript is poor that cannot matched the publication level right now.

1. Introduction The introduction part of this manuscript is like a report not in in an article style. It is not clear to show the research background and the highlights of this study.

3. Study results and discussions P6_12, "Figure 9 shows that the greater the peak rainfall, the shorter the reaction time lag is for the groundwater level to rise." Why? The correlation coefficient is small. The evidence is not enough to support this conclusion. P6_30, the question is the same as P6_12. P8_26, Fig.15 is the same as Fig.14 in P29, this should be a mistake. P10_30, The results in Fig.22 is not clear. Why combined data from two diffident monitoring points to analyze the threshold of the cumulative rainfall? The analysis for groundwater level is qualitative, here should be more quantitatively to show the effect of the rainfall to the groundwater level including the response lag time, response velocity and response rising degree. The analysis of the simulation work is also not clear and quantitatively to point out the relationship between typhoon rainfall, slop groundwater level and the displacement of the slope.

4. Conclusion The discussion of this manuscript is poor. The monitoring work of this study is worthy, but the scientific value of the conclusion is not enough. The manuscript is more like a report. It should be thoroughly revised.