Natural Hazards
and Earth System
Sciences
Discussions

Interactive comment on "Deformation characteristics and exploratory data analysis of rainfall-induced rotational landslide: A case study of the Zhutoushan landslide in Nanjing, China" *by* Weiguo Li et al.

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The authors are grateful to the reviewer, who offered the constructive suggestions to enhance our manuscript. EDA can only detect outliers in a dataset and can not identify the cause of the outliers which is caused by data transmission or deformation of the landslide. Simply removing outliers can add further bias to the analysis, so EDA need to enable the user's engagement in the terms of user's feedback. This is our main challenges and limitations for exploring the dataset. For GNSS data in landslide monitoring which is a single variable data, we are mainly analyzed by using box plots and scatter

plots. In order to monitor deformation of landslide, multi-variable data can be collected by using a variety of monitoring methods and means. The EDA is usually difficult to describe the outlier of multi-variable. The landslide deformation data can be visualized through a variety of methods. From the form of expression, it is better to separate the horizontal deformation data and vertical deformation data, and it is easier for people to obtain relevant information from the figure 12 and 14. While figure 13 shows the data of North, West and Height at the same time, it cannot well show the deformation process, and only shows the results. Thank you for your comment, we will improve our manuscript in our new version.

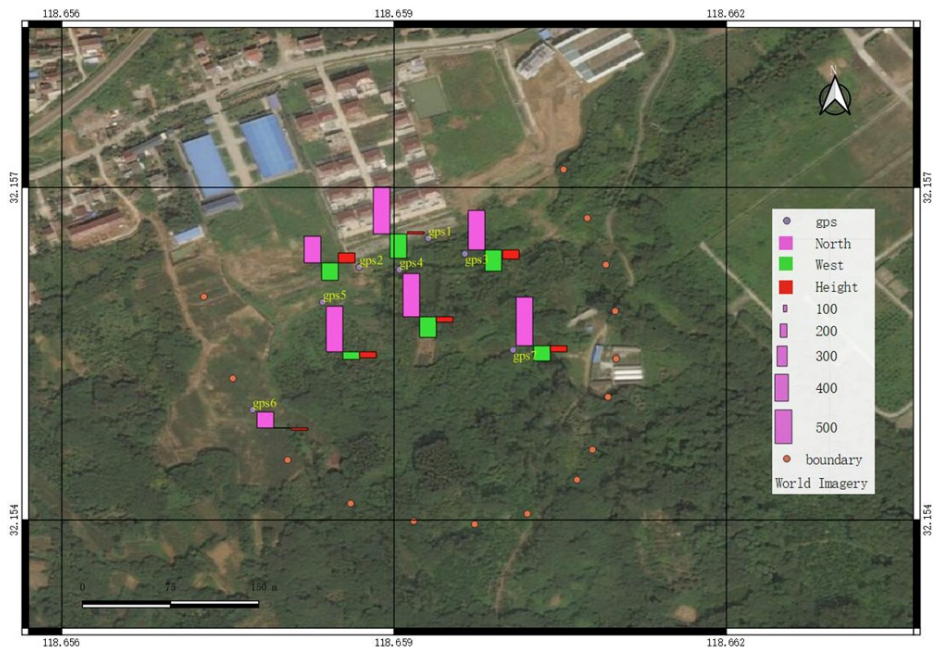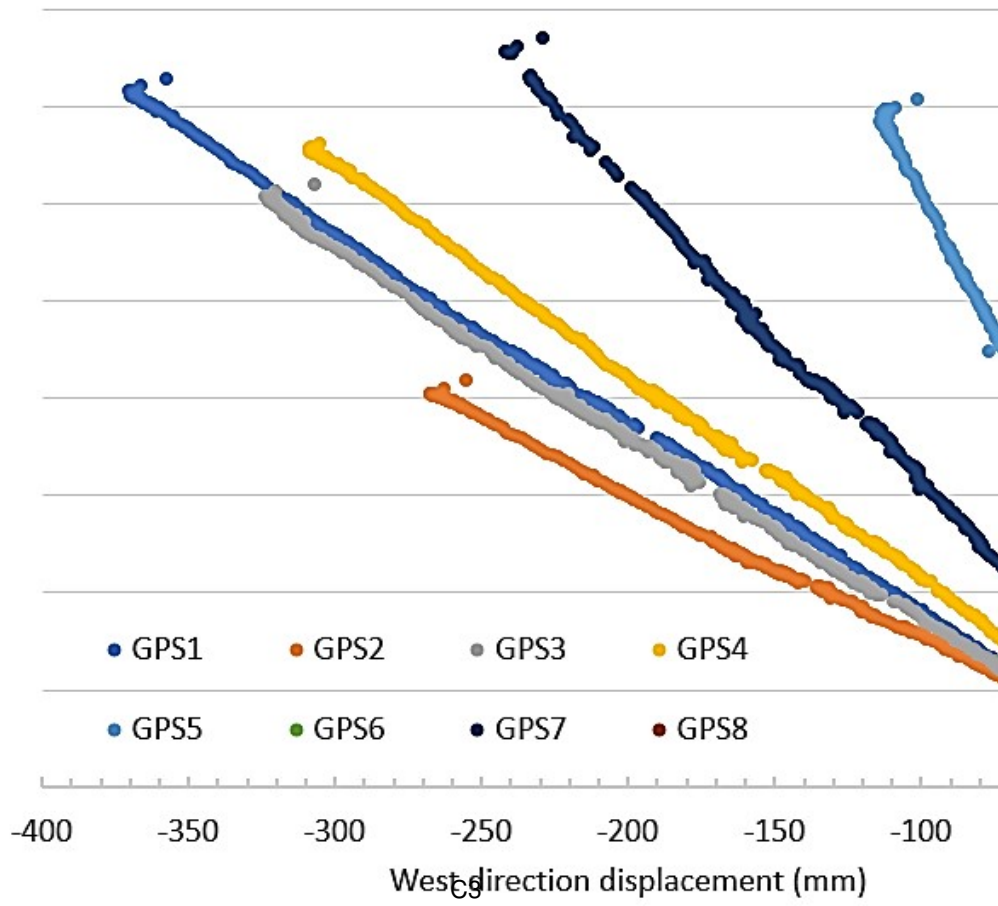Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., https://doi.org/10.5194/nhess-2020-175, 2020.
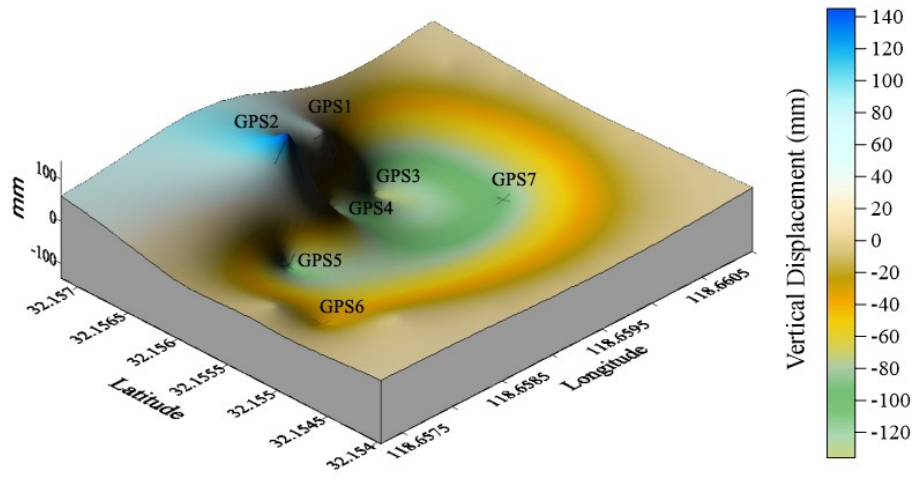
Fig. 2. Figure 13 Surface displacement visualization.jpg

Fig. 3. Figure 14 3D graph on April 8th 2019.jpg

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