

Manuscript: Reliability Analysis Method for Soil Slopes Permanent Displacement under Mainshock-Aftershock Sequences.

Date: August 14, 2026

Response to Reviewer Comments

Again, we would like to express our sincere gratitude to the editor and the reviewers for the detailed, patient, and constructive comments. We greatly value these insightful suggestions and have carefully addressed each comment in the revised manuscript. A point-by-point response is provided below.

Reviewer 1# Comments

I observed several important problems in the figures, figure captions and in the references section of the manuscript. A number of references lack complete details or contain inaccuracies. Additionally, the formatting of the references should be thoroughly revised for consistency.

Line 36: I could not find the reference of Li et al. (2017) in the references section. There is a reference for Li and Chen (2017). Please check and revise this reference and the text.

Response: Revised accordingly.

Line 53: There is no reference of Kim and Sitar (2013) in the references section.

Response: Revised accordingly.

Line 59: It would be better to write as "(Liu and Liu, 2017; Liu et al., 2019, 2022)".

Response: Revised accordingly.

Line 84: Is it Li and Yang (2006)?

Response: Revised accordingly.

Line 100: Are they Li and Chen (2008) and Liu and Liu (2017)?

Response: Revised accordingly.

Line 163, 212: Please check the reference of Yeznabad et al. (2022)

Response: Revised accordingly.

Line 178: Please revise the citation as Liu and Liu (2017).

Response: Revised accordingly.

Line 194: Please provide the reference of Yener (1988).

Response: Revised accordingly.

Line 296, 304, 349: I observed that some of the DOIs provided in the reference list do not match the corresponding articles. Please check and revise them.

Response: Revised accordingly.

Line 352, 376: I could not find these articles. Please check them.

Response: Revised accordingly.

Line 305, 354: Please provide the other details of this reference (e.g., volume, page number, doi number etc).

Response: Revised accordingly.

Line 298, 301, 312, 316, 329, 335, 342, 358, 364, 367, 380: Please revise the “doi number” of the references, as they are not working.

Response: Revised accordingly.

Line 370: Please revise the year of the reference as it appears to be published in 2026 (not in 2022). Please also check the text.

Response: Revised accordingly.

Comment for the figures:

Figure 5: I suggest that the authors should revise the plots and figure caption by placing the labels (a–c) alongside their corresponding CAV values (e.g., (a) CAV = 12 m/s, (b) CAV = 28 m/s, (c) CAV = 40 m/s) in the upper-left corner of each plot. Please explain the axes of the plots in the figure caption (e.g. Dma?)

Response: Revised accordingly.

Figure 6: Please check if CAV=12, 28, 40 cm/s? or CAV=12, 28, 40 m/s? Besides, there are two (b) in the figure caption. Please explain Dma (m), PDF, CDF in the figure caption. Similar to Fig. 5, the authors should revise the plots and figure caption by placing the subfigure labels (e.g., (a), (b) as such) in the upper-left corner of each plot. The text below the individual plots should also be removed, as a single, consolidated figure caption is sufficient.

Response: Revised accordingly.

Figure 7: Please revise “(Wang et al., 2023)” on the plots.

Response: Revised accordingly.

Reviewer 2# Comments

1. The displacement thresholds are inconsistent throughout the manuscript (e.g., 0.05/0.25/0.50 m versus 0.05/0.5/1.0 m) and should be made consistent.

Response: Revised accordingly.

2. The description of the ground-motion scaling procedure requires clarification, as the manuscript states that the records were scaled to target CAV levels while also indicating that amplitude scaling was avoided. It is unclear why scaling of motions was avoided as scaling is a standard and required practise in seismic analysis.

Response: Revised accordingly. We acknowledge that it was not sufficiently clarified in the previous manuscript. We have now added the relevant explanation. Please see Lines 2–3 of the

revised manuscript.

3. A brief discussion on the statistical representativeness of the selected 96 MAS records would further strengthen the manuscript.

Response: Revised accordingly. Please see Lines 2–3 of the revised manuscript.

4. A final English language edit is recommended to improve clarity, grammar, and overall readability.

Response: Revised accordingly. In addition, the presentation order of the relevant content in Section 4, “*Results and Analysis*” has been reorganized to improve the logical flow and facilitate readers’ understanding.