

Dear Editors and Reviewers:

Thank you for your letter and for the reviewers' comments concerning our manuscript entitled 'Linear passive source surface wave dispersion curve picking based on supervised deep learning and ambient noise tomography for the evolution of the internal structure in landslide area' (egusphere-2026-1329). Those comments are all valuable and very helpful for revising and improving our paper, as well as the important guiding significance to our researches. We have studied comments carefully and have made correction which we hope meet with approval. Revised portion are marked in red in the paper. The main corrections in the paper and the responds to the reviewer's comments are as flowing:

>>>The arrow indicating part are the response of authors to editors and reviewers.

**Reviewer 2:**

The manuscript presents a solid and well-structured approach for investigating the internal structure of a landslide from China, using ambient noise tomography combined with a dense linear array and advanced processing methods (ESPAC, CPSO, lightweight U-Net). This integrated workflow is clearly explained and represents a meaningful improvement over traditional dispersion-picking techniques. The study convincingly shows that AI-assisted ambient noise tomography can capture the spatial and temporal evolution of an active landslide. The identification of low-velocity layers, weak zones, and potential slip surfaces is well supported by the data, even in complex topographic and geological conditions. The argument that daily Vs variations may serve as indicators of reactivation is reasonable and valuable.

There are some minor revisions regarding grammar in order to improve the writing:

Row 139: comma instead of dot (at 38250 m).

>>> Thank you for this careful correction. We have made modifications here.

Row 148: 'annual precipitation **of** 1252.2 mm' instead of 'annual precipitation 1252.2'.

>>>We appreciate this valuable comment on standardized writing of meteorological indices. Following your suggestion, all relevant descriptions have been corrected to the complete form 'annual precipitation of 1252.2 mm', eliminating the abbreviated expression 'annual precipitation 1252.2' without unit preposition.

Row 149: 'annual temperature of 14.30 C 'instead of annual temperature 14.30 C '.

>>> Thank you very much. As mentioned in the previous suggestion, all relevant descriptions have been corrected.

For the future research, I suggest to expand slightly on how future methods (joint inversion with electrical resistivity, GIS integration, permanent sensor networks) would improve model robustness. Overall, the manuscript is strong, relevant, and technically sound. With these minor revisions and clarifications, I strongly recommend it for publication.

>>> We appreciate this constructive suggestion regarding the outlook for future research. As advised, the resistivity method will be executed for imaging inversion from another perspective and we hope that more detailed discussions on joint inversion combined with electrical resistivity will be summarized and presented in the future.