

Response to the comments of Referee #1 and Referee #2 on manuscript egusphere-2025-1151

S. Weber et al.

August 20, 2025

Dear Editor and Referees,

We thank the editor for forwarding the reviewers' additional comments and for the opportunity to submit a final revised version of our manuscript. A point-by-point reply to all comments (highlighted in blue) is provided below. We greatly appreciate the constructive feedback and have carefully addressed the minor points raised.

With kind regards,
Samuel Weber
On behalf of all authors

Reply to Anonymous Referee #1

I thank the authors for their thorough and satisfactory response to the reviewers' comments. I have no further suggestions/comments on the manuscript. Please just note that in the caption of Fig. S6 the event is dated as June 14.

Reply: We thank the reviewer for the positive feedback and for carefully spotting the inconsistency in the caption of Fig. S6. We have corrected the date accordingly.

Reply Anonymous Referee #2

The authors have addressed most of my comments. They choose not to extend the analysis of seismic data to a longer time period. I understand their reasons but I am still disappointed; as a seismologist I am very curious to see how dv/v and seismicity rate evolve over a longer time scale.

Issue 1: Still, I find that the authors are too optimistic in their interpretation of the results of seismic analysis. Based on the results shown in Figs 8 and 9, I don't agree that "These findings indicate that integrating dv/v analysis with event detection has a strong potential as a spatially integrative tool for assessing rock slope stability, ...". I suggest replacing by "could be useful to".

Reply: We thank the reviewer for this valuable comment. We have revised the sentence accordingly and now state:

"These findings indicate that integrating dv/v analysis with event detection ~~has a strong potential~~ could be useful as a spatially integrative tool for assessing rock slope stability, especially when typical precursor signals like smaller rockfall events do not occur."

Issue 2: And in section 5.3, replace ", the seismic precursors exhibited greater variability" by "the dv/v and seismic activity exhibited greater variability", because it's not clear whether the temporal variations show any precursory anomaly.

Reply: We thank the reviewer for this helpful clarification. We have revised the sentence in Section 5.3 accordingly and now state:

While displacement data allowed for clear precursor detection, ~~the seismic precursors~~ the dv/v and seismic activity exhibited greater variability and lacked consistent warning patterns.

Issue 3: Also, Fig 10 does not show examples of seismic waveforms.

Reply: We thank the reviewer for this helpful comment and for pointing out the confusion. The remark indeed refers to Fig. 11, rather than Fig. 10, which shows examples of seismic waveforms. We have corrected the reference accordingly to avoid any misunderstanding.

Issue 4: Last point (sorry for not thinking about it before), could you add in Fig 9 the coherence between each cross-correlation curve and the average curve? It may show a stronger precursory anomaly than the dv/v value.

Reply: We assume that the comment refers to Fig. 10 rather than Fig. 9, as this is where the cross-correlation curves are shown. Following the suggestion, we have added the coherence between each cross-correlation curve and the average curve in Fig. 10. Coherence values reach typical values above 0.8 throughout the analysed time period and indeed provide a clearer view of potential precursory anomalies compared to the dv/v values alone.