This work focuses on seismic analysis at three monitoring locations along the channel yielding an understanding of how flow type and processes of the lahar evolve with distance. I found this article very interesting and technically correct. The problem is sufficiently described and motivated and the analysis of the results perfectly documented. Perhaps the only drawback, in my opinion ,is its applicability in real-time and risk situations.

Both the analysis and the conclusions are based on the processing of seismic signals before and after the appearance of the event itself. That is why my only doubt is based on how this work could be included as a real-time monitoring tool that improves or accompanies video-cameras. The study of seismic signals offers very important information on the phases of the flow as well as how it evolves with distance, but these conclusions are obtained from 'medium-term' analysis.
How should this technique be implemented in an observatory and how should it be analyzed to obtain relevant conclusions in the short term? Could this technique be automated in order to extract conclusions about the flow without human supervision?

I think these questions should be addressed in the manuscript in order to improve itself.

Finally,I have also found some minor bugs and some suggestions that will help to improve the work.

1) Section 3.1, line 187, Figure 2 is referenced. I think this reference is a mistake, and the authors wanted to reference Figure 3.
2) Section 4.2, line 325, the authors say: ' This low PSF before the head of the lahar arrives at the station could represent the supercharged stream flow pulse..'. What station are you referring to, RTMT? Whilst COLL station is being analyzed the analysis of the RTMT station is addressed, which could lead to confusion. It would be interesting to review this paragraph.
3) Finally, also in section 4.2, line 340, when the DR in COLL is analyzed, the authors refer to a phase change around 20 min after the arrival of the flow. Honestly, I am not able to visualize such a change in Figure 6. A similar change occurs around minute 12. Could the authors explain this conclusion?