

Response: We thank both referees for their constructive feedback and the handling editor for their support. The comments will substantially improve the manuscript. Below we address each point in detail, indicating changes made or clarifications to be added in the revised version.

In this paper, a new approach for an almost-continuous monitoring of erosion at the hillslope scale is presented. The idea of conducting a continuous survey is very innovative and challenging, and the methods presented are very promising. However, the paper in its present form presents some criticisms and necessitates some revisions.

- In the “abstract”, a lot of acronyms (SfM, GCP, CNN, DoD, LoD) are presented. However, most of them are not useful for the “abstract” section and could be removed.

Response: Thank you for this advice. Revised to remove acronyms that appear only once in the abstract.

- The “introduction” section is too simplistic. At least, the papers dealing with the use of SfM for monitoring hillslope erosion at the event/run scale should be presented.

Response: We will expand the introduction to include relevant studies using SfM for event- and run-scale erosion monitoring.

- Line 72: The start of the sentence is a bit twisted. Please, revise.

Response: We changed the sentence for clarity.

- Line 77: It is not clear if the investigated field was hydraulically delimited or not. This implies significant differences in terms of runoff generation and sediment transport dynamics.

Response: The system was installed so that the border of the area of interest remained unchanged and covered by vegetation, while the observed region itself was regularly tilled. This created a natural boundary between the monitored and surrounding areas. We will add this information to the manuscript.

- Line 79: I think that the “e” should be deleted.

Response: Thank you for noticing. We will remove it.

- Some acronyms are not defined in the text.

Response: We will check the manuscript carefully to avoid such issues.

- The sequence of tenses is not always optimal. Please, revise the text.

Response: We will revise the text to ensure temporal consistency.

- Lines 101-102: The sentence is quite confusing, and some words are repeated.

Response: We will revise it.

- The quality of the legends in Figure 3 is too low.

Response: In the final manuscript version high resolution figures will be used.

- Line 432: there is a point after mm that should be deleted.

Response: Thank you for noticing. We will remove it.

- How do you discern the elevation changes due to vegetation or post-tillage settlement from those due to erosion and deposition phenomena? I believe that resolving this aspect is crucial for the satisfactory application of the presented methodology. Even if briefly discussed, it remains incomplete.

Response: Thank you for your comment. We will clarify the issue of vegetation cover and its impact on the accuracy and reliability of soil erosion measurements. Regarding post-tillage settlement we already specify that we measure soil surface changes rather than soil erosion per se, but we will make this distinction even clearer in the revised manuscript.

- Have you thought about ways to increase the percentage of total usable days? Is it possible to further protect the setup and avoid big gaps in data collection?

Response: Yes, it is for sure possible to avoid such large gaps by improving the power supply and also further refining the data processing. We will discuss this in more detail in the revised manuscript. However, we would also like to highlight, even with 40% data gap, we have a lot more observation data for soil surface changes available than ever before as beforehand no such event data was available at all.

References:

Eltner, A., Kaiser, A., Abellan, A., Schindewolf, M. (2017): Time lapse structure-from-motion photogrammetry for continuous geomorphic monitoring. *Earth Surface Processes and Landforms*, 42(14), 2240-2253

Onnen, N., Eltner, A., Heckrath, G., Van Oost, K. (2020): Monitoring soil surface roughness under growing winter wheat with low altitude UAV sensing. *Earth Surface Processes and Landforms*, 45(14), 3747-3759