

Nat. Hazards Earth Syst. Sci. Discuss., author comment AC2 https://doi.org/10.5194/nhess-2021-208-AC2, 2021 © Author(s) 2021. This work is distributed under the Creative Commons Attribution 4.0 License.

## **Reply on RC2**

Tayeb Smail et al.

Author comment on "Earthquake-induced landslide monitoring and survey by means of InSAR" by Tayeb Smail et al., Nat. Hazards Earth Syst. Sci. Discuss., https://doi.org/10.5194/nhess-2021-208-AC2, 2021

Block Referee's comments Authors' replies and comments

Ι

The paper "Earthquakeinduced landslides monitoring and survey by means of InSAR" presents the results of the application of SAR images As stated in the previous and different techniques for discussion, the authors will the assessment and the thoroughly revise the paper if definition of landslides the Editors requests it. triggered by earthquake in Obviously, the revised paper the Mila regions (Algeria). The will incorporate all of the paper does not present comments and suggestions relevant and particular made by the referees and novelties, relying on standard readers. and very widely implemented applications such as Interferometric techniques (although with a newly developed algorithm such as LiCSBAS) and Coherence change detection; moreover, optical imagery were used to validate the results, however only through visual interpretation of pre-and postevent imagery. Moreover, the

structure of the paper is not very clear and needs to be

intensely revised.

II

Also, the authors should indicate which is the novelty pixel-offset technique is of their work and how these limited due to the incoherent standard approaches used are change of the ground. improved (if so). To strengthen the results obtained, the authors should consider also to use other SAR-based techniques, as amplitude analysis or pixeloffset techniques.

In this case, the use of the

III

Hereon, a list of detailed revisions to be addressed, in ground changes. Yes, there my opinion:

By disorder, we mean any was geomorphological evidence in the area (see Figures 2 and 20).

The abstract needs to be revised in some points: what does exactly means disorder (in line 18 and 19)? Is there any geomorphological evidence? Please, use correct terminology to define these elements.

IV

exact number of interferograms used for the research.

In line 21, please mention the As shown in table 2, 224 interferograms were used to perform time series analysis with LiCSBAS.We will add it in the sentence.

Line 23: is it real subsidence displacement or it is a deformation induced by landslide activity? please, specify and clarify it.