Block	Referee's comments	Authors' replies and comments
I	The paper "Earthquake-induced landslides monitoring and survey by means of InSAR" presents the results of the application of SAR images and different techniques for the assessment and the definition of landslides triggered by earthquake in the Mila regions (Algeria). The paper does not present relevant and particular novelties, relying on standard 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 post-event imagery. Moreover, the structure of the paper is not very clear and needs to be intensely revised.	As stated in the previous discussion, the authors will thoroughly revise the paper if the Editors requests it. Obviously, the revised paper will incorporate all of the comments and suggestions made by the referees and readers.
II	Also, the authors should indicate which is the novelty of their work and how these standard approaches used are improved (if so). To strengthen the results obtained, the authors should consider also to use other SAR-based techniques, as amplitude analysis or pixel-offset techniques.	In this case, the use of the pixel-offset technique is limited due to the incoherent change of the ground.
III	Hereon, a list of detailed revisions to be addressed, in my opinion: 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.	By disorder, we mean any ground changes. Yes, there was geomorphological evidence in the area (see Figures 2 and 20).
IV	In line 21, please mention the exact number of interferograms used for the research.	As shown in table 2, 224 interferograms were used to perform time series analysis with LiCSBAS.We will add it in the sentence.
V	Line 23: is it real subsidence displacement or it is a deformation induced by landslide activity? please, specify and clarify it.	The subsidence deformation has occurred as a consequence of the movement caused during the main Kherba's landslide.
VI	The introduction section is insufficient and does not provide a real comparison with the current state-of-the-art and does not highlight the achievements of this work and its novelty and added value in the current literature framework. Line 31: only the work cited highlight the usefulness of satellite imagery for prediction of landslides. Please mention additional works dealing with this topic and which different approaches can be mentioned. Lines 35-39: the sentence is very long and not completely clear. Please, consider to rewrite it. Moreover, provide additional and more updated literature. Line 41: please, specify what LiCSAR and LiCSBAS are. Section 2: the description of the study area is very weak and insufficient. Please, indicate the geological and geomorphological setting of the study area to fully characterize the deformational events occurring. Section 2.1 provides a sort of scheme of the research conducted. This could be summarized in the introduction or schematized in section 3. Line 70: is there any literature citing and describing the seismicity of the study area? Line 72: is there any existing landslide inventory of the study area? Section 2.3: please, consider to add a short description of the Sentinel-2 dataset. Line 94: why using this reference? It is not linked to the statement. Section 3.1: the description of the basic principles of SAR interferometry can be skipped, I would rather describe in a more specific way the LiCSAR and LiCSBAS software and approach. Moreover, if possible, please provide a workflow to summarize the approaches used in this research. Section 3.2: at the current state, this section is poorly described, without any specific indication on the technique used or on the dataset implemented. Section 4: Lines 168-171: please, consider to delete this paragraph, since it is a repetition of something already stated previously. Lines 172-178: please, use a conceptual scheme or a workflow to summarize what it is written here. Figure 5: please, consider to indicate LOS direction in the figures. Figure 7: please, consider to indicate LOS direction in the figures. Figure 8: please, indicate dates of the several figures. Moreover, a better description of what can be observed in the figures should be provided within the text. As it is, the description in the text is insufficient.	All comments and remarks raised by the referees and readers will be taken into account.

	Line 222: I would say that DInSAR has abundantly proved to be a solid technique for the monitoring of slow movements, not that is expected. Please, consider to use more up-to-date references. Figure 9 and 10: please, consider to indicate LOS direction in the figures. For figure 10, please, indicate the biased pixels in the map. Figure 11: the dates are rather difficult to be seen. Figure 12: Please, indicate the dates and provide a better description of what can be seen here within the text. In the CCD analysis, could you please also indicate the mean coherence value of the post-event phase? In this case, quantify the change as you have already done. Section 4.2.2. This section is poorly described and in general the validation with S-2 images is insufficient. First of all, it is not comprehensible which kind of data treatment has been done. Thus, I do not see any particular change in the two images, as well as I do not see the cracks indicated and the motion direction. Please, consider to re-write and do again more specific analyses with optical imagery (e.g., change detection, specific codes, etc.). Section 4.3: please, move the LiCSBAS description in section 3 (by adding some more details). Discussion section: this section is very poor and does not provide any critical analysis of the results nor it is showing which is the novelty of this applications. Moreover, the latest point, related to the "new hillside deformation" should be clarified, improving the interpretation of this area. Conclusions: Line 345: this statement is pretty obvious, InSAR is a consolidated technique which has continuously proved its efficacy over the last 30 years.	
VII	Line 35: InSAR is not an active sensor system, but a technique for the processing of SAR images. Please, use the proper terminology.	Indeed, the InSAR is the technique which processes the active radar systems.
VIII	Line 49: how the analysis of the results can be used for early warning? Please, explain this statement.	The results from Grarem site analysis show some fringes and coherence loss that prove and indicate a slope's instability (no landslide occurred yet), which may generate a future land failure. This information obtained from the InSAR study can then serve as early warning information and raises awareness about the need to monitor this area.
IX	Line 59: what is a geotechnical disorder? Please, consider to use a more appropriate terminology.	It will be replace as “geotechnical hazard”!
X	Figure 14 and 15: what the full lines are indicating?	Figure 14 depicts the frequency distributions of coherence values within the RoI, with the lines indicating the change in coherence over time. In Case A, the green line represents the pre-event coherence distribution, and the red line represents the post-event coherence distribution, which shows a decay of the mean coherence after the main event (dates and values are presented in the legend). Figure 15 illustrates why we chose the interferogram of the 22-28July (green line) as the pre-event (initial) even though there is another IFG of (22July-3Aug green dotted line) with only 4 days before the main event (7 August 2020).
XI	Please, highlight and describe better what can be seen outside of the landslide border, in particular along the SW flank, where considerable displacements are visible (Figure 17). If this is the area with possible "subsidence or landslides", how this can be interpreted? Can you rely on additional data to interpret the displacements? is it on a slope or on a flat area? can you estimate if the movement is vertical or horizontal? In this case can you combine ascending and descending imagery to obtain vertical and horizontal projection from LOS data.	The region is located on the opposite hillside of the Kherba Hill, and both sides have a significant slope, so one possible explanation for this subsidence is probably related to the large mass movement of the main landslide, causing the opposite side of the hill to move down (subsidence).
XII	Figure 18 and 19: first of all, these figures are poorly described within the text. Figure 18 is showing very noisy time series. Can you explain this?	It appears noisy due to the small number of IFGs used (short period 4 months before and two months after the main shock) compared to the analysis shown in figure 19.