

Interactive comment on “Assessments of land subsidence along Rizhao-Lankao High-speed Railway at Heze, China between 2015 and 2019 with Sentinel-1 data” by Chuanguang Zhu et al.

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Received and published: 27 June 2020

This is a quit interesting study involving using InSAR technique (i.e., SBAS) with Sentinel-1 data to monitor the ongoing land deformation around the Rizhao-Lankao High-speed Railway in China. The authors explored ground deformation by means of InSAR processing of two different passes of ascending modes and validated the results through a cross-comparison. The natural factors (e.g., precipitation) and anthropogenic activities (e.g., mining and groundwater extraction) were investigated to figure out the main cause of the land subsidence. Generally, the paper has been written in a well-organized manner and is within the scope of the special issue. Some minor comments

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are mentioned below that I think could improve the manuscript.

Introduction:

1-In the first paragraph of page 2, the following corrections should be performed: “time-consuming” and “advanced methods”.

Methodology:

1-Which strategy has been taken to mitigate the atmospheric artifacts in the ifgs?

2-As the multi-looking and spectral filtering have not been applied, how did you get a coarse spacing of 50m for the final result?

3-The function of adaptive filter along with the selected parameters should be more elaborated for readers.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2020-176>, 2020.

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