

Interactive comment on “Subsidence activity maps derived from DInSAR data: Orihuela case study” by M. P. Sanabria et al.

Anonymous Referee #3

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General comments:

In this paper a new method to produce subsidence maps from PSI is proposed. Only few techniques have been presented in the literature to further process the PSI results to subsidence maps, usually simple interpolation is used. Therefore, this is an interesting and important topic, and the study is novel. Presentation is scientific, however more details and discussion are needed. Also the structure and figures of the paper could be edited to make them easier to understand.

Specific comments:

Chapter 2 could be combined with chapters 4 and 6 to clarify the presentation. Short summary of the steps could be added to end of the Introduction.

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page 5369 line 8: Differential settlements and angular distortions should be further explained and equations added to the text.

Fig 1a and 4. Colors of the background map could be more distinguishable (carbonatic rock... vs. sand...)

Fig 1b. Piezometric level evolution should be more explained in the text.

Page 5371 line 1: The parameters used in the interferogram generation and SPN processing should be mentioned as well as the reference for deformation.

Page 5371 line 6: The number of SAR images should be mentioned and a list (table) of images added to the paper.

Chapter 7. Table of numerical results for each historical building should be added

Discussion: More discussion on the applicability of the proposed method. What auxiliary information is needed in addition to the PSI results to apply this technique? Pros and cons, sources of error of the method should also be clearly discussed.

Technical corrections:

Page 5373 Line 13: please revise “krigging”

Fig 4. Density unit is missing

Fig 6 and 7. Please revise “hystoric”

Font size in figure legends should be slightly increased.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 1, 5365, 2013.