

Interactive comment on “A semi-automatic procedure to support the detection of rapid-moving landslides using spaceborne SAR imagery” by Giuseppe Esposito et al.

Anonymous Referee #2

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General Comments This research is very interested, and I think it represents a valuable contribution to the current state-of-the-art of landslide mapping and detection during post-emergency phases, especially in case of persistent clouds. The Authors apply a change-detection method, classically used in optical remote sensing, to radar images. The rational and methods are well described and presented. I agree with other comments about the title: it is somehow inexact. The main contribution of the research is the detection of earthquake-triggered landslides (event inventory mapping) rather than rapid moving landslides detection before occurrence. Therefore, I agree to revise it. The manuscript is supported by a robust biblio-graphic background. The scientific sound is appropriate and supported by a good statistical analysis, which makes the

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results very interesting and noteworthy. The overall quality of the manuscript is very good, with an appropriate number of figures. The English language is good. I have just a few comments as reported in the attached pdf file.

Specific comments - Please provide more information about the used images (ex. image characteristics, geometry of acquisition).

- Please provide more information about georeferencing problems of radar images and associated characteristics that play a role in analysis (i.e. layover, shadow and foreshortening).

- Along the text, it is not clear which processing step is done manually, semi-automatically and in a fully automatic way. Please specify better.

Please also note the supplement to this comment:

<https://www.nat-hazards-earth-syst-sci-discuss.net/nhess-2020-55/nhess-2020-55-RC2-supplement.pdf>

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2020-55>, 2020.

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