

Interactive comment on “Global detection of rainfall triggered landslide clusters” by Susanne A. Benz and Philipp Blum

Anonymous Referee #2

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General comments The paper proposes an algorithm to detect and group clusters of landslide events that occurred or were triggered by the same rainfall event. The algorithm is then applied to the Global Landslide Catalogue (GLC). The paper has a good structure, even if, some improvements are needed to increase its quality and clarity. The research topic, from my point of view, is useful and of interest. In the following my revision. The abstract should contain a description of the main aim and the innovative features of the research proposed. In my opinion, the abstract focuses too much on the results. The rows 14-20 should be summarized. It is not useful, and probably counterproductive, going too much into detail in the abstract. Then, I would suggest the authors to describe the aim of the algorithm and the innovative features of the research, focusing on how the paper is pushing a step forward in this topic. Concerning

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section 2.3 "Method", I would suggest going more deeply into the explanation of the algorithm. A flowchart can be useful to fully describe the processes behind it. Moreover, the description of the two conditions for gathering landslide events into the same rainfall events should be described more in detail, in particular the condition (II). The choice of those values, for the spearman correlation and the p-value, should be fully described, also commenting about the limitations connected to those choices (as done for condition (I)). Then, I would also suggest moving in this section the method used to define the rainfall events, using section 2.1, and 2.2 only to describe the dataset available. Please consider using more tables in Section 3 to summarize and better describe the results obtained. Currently the text may result a bit confusing. Finally, I would suggest to clearly split the discussion from the results. Please consider creating Section 4. "Discussion. In this way the authors' comments are highlighted and easy to be understood for a reader.

Specific comments Avoid in the text: ">", "<", etc... Fig.1 difficult to distinguish among dots. I would suggest enlarging this figure. Please check the numbers for tables and figures (i.e., lines 122, 124: Fig. S1 ??; line 169: Table S1??)

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