

Interactive comment on “Rainfall events with shallow landslides in the Entella catchment (Liguria, Northern Italy)” by Anna Roccati et al.

Anonymous Referee #2

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My review is composed by two parts. First, I provide some general and specific comments. Second, I answer the questions provided by the journal guidelines.

GENERAL COMMENTS The manuscript is about a case study where three main rainfall events are thoroughly described; after, already published and well established methods are applied. Therefore, the only value of the manuscript is presenting the new case study, while no relevant scientific findings are presented. It seems to me that this is a sufficient reason for rejection, but the Editor will have the final decision on that.

The introduction is poor. It fails to present the existing state of the art and to introduce the advances presented with this manuscript. Moreover, the introduction is centered only on the case of study. The scientific literature is not properly addressed, thus it is not clear the novelty and the improvements conveyed by the work.

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References should be completely revised. They are very numerous but they are very biased: almost only Italian authors are present. Some of them with a unnecessary high number of works. Moreover, some of the references are unnecessary or not relevant (e.g. conference proceedings). I suggest to reduce the references and address the recent international literature.

The discussion is not a discussion. It starts with a recap, then it introduces some elaborations (rainfall threshold analysis) that in my opinion should be described in the methodology and in the result section.

The comparison with some literature thresholds is trivial. It is obvious that different sites are represented by different thresholds. I suggest to either cut this descriptive part, or to deeply discuss the reasons of the similarities/differences.

Some of the conclusions are not supported by data and are just speculations: -How can the study be useful for "land planning" and "risk reduction"? You didn't provide a susceptibility map or a hazard assessment. - the "method to define..." is not original work of this manuscript. It is a published and quite well established procedure.

SPECIFIC COMMENTS L21: a reason for the low threshold should be provided

Study area: typical landslides should be characterized (at least typology and size)

L71: why inundations are included in a work about landslides?

L69-81: two sections cannot have the same title.

L89: please, avoid generic terms like "most". How many of them?

L113-177: I don't understand the reason of including detailed event reports in a research paper. This part could be consistently shortened or cut.

L194-198: these are just generic statements. They are not supported by data. It would be interesting to see statistics and numbers. E.g. what's the difference between an abandoned and a maintained terrace? From your text it seems that in both cases they

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increase landslide susceptibility. This is a very strange statement: can terraces be abandoned harmlessly?.

L275-281: As I understand, rainfalls have been normalized by the MAP registered by three rain gauges. This is not correct: each rainfall should be normalized by the MAP registered by its own rain gauge.

L296: I think in the text you provided different numbers.

— ANSWERS TO JOURNAL GUIDELINES Does the paper address relevant scientific and/or technical questions within the scope of NHESS? YES, the topic of rainfall induced landslides is within the scopes of NHESS.

Does the paper present new data and/or novel concepts, ideas, tools, methods or results? NO. Data are unpublished but concepts, ideas, tools, methods and results/conclusions are nothing new.

Are these up to international standards? NO (no relevant original content)

Are the scientific methods and assumptions valid and outlined clearly? YES each
Are the results sufficient to support the interpretations and the conclusions? NO (see specific comments)

Does the author reach substantial conclusions? NO

Is the description of the data used, the methods used, the experiments and calculations made, and the results obtained sufficiently complete and accurate to allow their reproduction by fellow scientists (traceability of results)? YES

Does the title clearly and unambiguously reflect the contents of the paper? YES

Does the abstract provide a concise, complete and unambiguous summary of the work done and the results obtained? YES

Are the title and the abstract pertinent, and easy to understand to a wide and diversified

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audience? YES

Are mathematical formulae, symbols, abbreviations and units correctly defined and used? If the formulae, symbols or abbreviations are numerous, are there tables or appendixes listing them? YES

Is the size, quality and readability of each figure adequate to the type and quantity of data presented? YES

Does the author give proper credit to previous and/or related work, and does he/she indicate clearly his/her own contribution? YES

Are the number and quality of the references appropriate? NO. References are very numerous but they are very biased: almost only Italian authors are present. Some of them with a unnecessary high number of works. Moreover, some of them are unnecessary or not relevant (e.g. conference proceedings).

Are the references accessible by fellow scientists? NO. I doubt that many conference proceedings could be easily accessed.

Is the overall presentation well structured, clear and easy to understand by a wide and general audience? NO. I have concerns on the manuscript structure (see comments below).

Is the length of the paper adequate, too long or too short? ADEQUATE

Is there any part of the paper (title, abstract, main text, formulae, symbols, figures and their captions, tables, list of references, appendixes) that needs to be clarified, reduced, added, combined, or eliminated? Sections 4.1, 4.2 and 4.3 are basically a short version of three event reports. They distract the reader from the scientific content of the manuscript.

Is the technical language precise and understandable by fellow scientists? YES

Is the English language of good quality, fluent, simple and easy to read and understand

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by a wide and diversified audience? YES

Is the amount and quality of supplementary material (if any) appropriate? N.A.

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