

Interactive comment on “From regional to local SPTHA: efficient computation of probabilistic inundation maps addressing near-field sources” by Manuela Volpe et al.

Anonymous Referee #3

Received and published: 15 August 2018

Review for NHES-2018-202 entitled: “From regional to local SPTHA: efficient computation of probabilistic inundation maps addressing near-field sources” by Manuela Volpe et al.

Overview: The authors did an extension of the SPTHA method previously proposed by Lorito et al. (2015) [GJI] and Selva et al. (2016) [GJI]. A new filtering scheme for earthquake scenarios is developed (Filter P) and the method is applied to a particular coast (Millazo).

Overall evaluation: The application of the SPTHA to a new region and adding some innovations to the previously-developed method may justify publication of this work.

C1

The paper is not as good as the other two papers published before (I mean Lorito et al. 2015; Selva et al. 2016). The current manuscript refers to the previous two papers very frequently and does not seem to stand by its own. However, I am positive about this work and I think it can be published in NHES after some revisions. I made some suggestions below.

Comments: - Page 3, “Method”: your Section 2 looks a review of the methods previously published by Lorito et al. (2015) [GJI] and Selva et al. (2016) [GJI]. Your own method is outlined in Section 3. This is confusing. In fact, your current section 2 is sort of literature review. I suggest change the title of Section 2 to “A review of SPTHA” and then change title of Section 3 to “Methods: an improved SPTHA”.

- To show the better performance of the new method over the ones published before (I mean Lorito et al. 2015; Selva et al. 2016), a discussion or a figure is needed.

- Try not to refer to two previous papers so much. You may want to show more independence.

- In Page 9, refer to appropriate figures when discussing the results.

- Why you have capital letters for STEP? Is that necessary? If not, change it to “step” because when you use capital letters, the reader assumes it is an acronym. I guess it is not an acronym for anything.

- Page 5, Line 17: explain more about Filter P.

- Page 6, Line 2: what is intra-cluster? It is unclear. Make sure to explain more about it and clarify how it works.

Page 6, Line 7: delete statements like “as mentioned before...” it is not suitable for academic writing.

Page 7, Line 32: delete “as discussed in previous ...” Again not suitable.

Page 8: here you use “cluster” and “scenario” interchangeably. Make sure which one

C2

you meant. I assume that you meant “Scenario” not “cluster”. They are different. Cluster is much bigger than a single scenario. One cluster can include 200 scenarios. In Line 13, you say: “We obtained 634 and 520 clusters for remote and local sources, respectively, that is a total of 1154 scenarios. . .”. Here the sum of 634 and 520 clusters cannot be 1154 scenarios. Instead, the sum of 634 and 520 clusters cannot be 1154 CLUSTERS.

- Your conclusion has many repeats; for example lines 8-13. Make sure delete all repeats.

- ABSTRACT: try to have more numbers and conclusions, not only generic statements.

- CONCLUSIONS: shorten it to a paragraph and be specific and do not repeat all stuff again.

- Figure 1: The last box repeats. Delete one of them.

- Figure 2: Explain what are two sets of red dots.

End of review.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2018-202>, 2018.