

Nat. Hazards Earth Syst. Sci. Discuss., referee comment RC2
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Comment on nhess-2021-70

Anonymous Referee #2

Referee comment on "Variable-resolution building exposure modelling for earthquake and tsunami scenario-based risk assessment: an application case in Lima, Peru" by Juan Camilo Gomez-Zapata et al., Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2021-70-RC2>, 2021

General comments:

This document addresses the earthquake and tsunami scenario-based risk assessment based on the variable-resolution building exposure modelling and the application in Lima, Peru.

From the reviewer's point of view, both the Central Voronoi Tessellations (CVT) itself and the application are topics of great interest since this is a useful method related to earthquake and tsunami risk assessment for communities affected or potentially affected by these threat.

However, Some process details were not explained clearly. This article uses the scientific research results of several scholars to get the research results. How to verify the research results? What is the innovative idea or technology of this article?

The general comment for the whole paper is that the reviewer has not been able to find enough significant points regarding the principal criteria of the reviewing process.

Considering the above mentioned and after reflection, the final consideration for the review is: major revisions.

Below, there are also some specific comments intended to contribute to the improvement of the article.

Specific comments:

Section 1 (page 4): The authors could highlight the advantages of the CVT, (1) (2) (3)...

Section 3.2: A numerical calculations table is needed to show the spatial resolution, time step, spatial range, and what water depth and elevation data is used.

Section 3.2: What governing equations are used in TsunAWI. Some detail about TsunAWI should be introduced.

Section 3.6: What are the advantages of Suppasri's method and De Risi's method? Which method is the last choice? This issue should be discussed.