Interactive comment on "Multilayer-HySEA model validation for landslide generated tsunamis. Part I Rigid slides" *by* Jorge Macías et al.

Anonymous Referee #2

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General Comments:

The paper presents the state of the art description for numeric methods of tsunamis generated by land-slides. It presents a large number of references, which permits to apprehend the context of this work and what it brings in terms of novelty. The text clearly written which helps and readers follow the explanations, namely the results about the benchmarks. The subject and work is in the scope for publication in the NHESS journal.

Specific Comments

The figures displaying the comparison between the numeric modeling and laboratory data are clear and seem to indicate that the numeric code behaves well in reproducing

the time series registers at the laboratory acquired wave gauges. It maybe be a little exaggeration to say in pag 15 l. 284 "In Figure 6 the comparison of the numerical results with the filtered lab measured data is presented. An excellent overall agreement between them can be observed". In fact for figures 6C and 6D after ∼1 sec the two curves start to show an phase offset. Other figures like for example Figure 8 show a much better agreement.

I have, however, a more fundamental critique about one aspect of this work. It is said at pag 28, point 7 that addresses the "Code availability" topic that: "The numeric code is currently under development and only available to close collaborators". First, the code seems to be in sufficiently advanced state, which is what allowed to achieve the good comparison against the laboratory data shown in the benchmarks. But the part that says the code is closed source is what I think is more problematic for the intention to publish a paper about it. There is nothing wrong about people wanting to keep the codes they write in closed form. But in current times I think it is inappropriate to want both to publish a paper about the behavior of a numerical code and keep source code in closed form. It is thus my recommendation that publishing the paper, which has the quality and is in sate to be published, needs to fulfill the condition that the source code is made public for usage and review.