

Interactive comment on “Reciprocal Green’s Functions and the Quick Forecast of Submarine Landslide Tsunami” by Guan-Yu Chen et al.

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General Comments: The tsunamis generated by submarine slides are not as frequent as the submarine earthquakes. However, they can be locally devastating and their potential tsunamigenic impact need to be analyzed. For this reason the paper is interesting. It is well written and deserves publication with minor revisions.

Detailed Comments: 1. Introduction Line 43: please provide references of the “previous studies”. Line 50-53: please remove this sentence. The Sunda Strait 2018 tsunami was generated by a lateral collapse of the Anak Krakatau volcano and not by a submarine mass failure. It seems that the relative web site citations are not deeply documented on the subaerial characteristics of this event. Line 59: at the end please

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use “.” instead of “:”.

2. Methodology Line 76: please rename the section “Research Method” as “Methodology”. Line 77: please remove the word “Matematically” at the beginning of the sentence. Lines 77-79: I suggest to change the text in this way: “Two equation sets will be presented: 1) the shallow water equations (SWEs) with SMF forcing, and 2) the SWEs with impulsive forcing represented by a delta function. Line 83: shallow water equations are mention but never written. For clarity, please insert the SWEs before line 83. Line 88: please provide the reference for the COMCOT model here, not at line 156. Line 101: please remove the words “The good news” and start the sentence with “This” . Line 105: please remove the words “shallow water equations” (already written) an leave the acronym. Line 114: please write greek symbol delta near “(delta function)” Line 116: please explain x_s and y_s coordinates. Line 117: Is v equal to V in line 110? Line 118: please say if g is gravity. Line 121: please say what “ dA ” is. Lines 182-185: the meaning of these sentences is not clear, please explain and re-write them.

3. Results Line 223: please write “Case 1 considers a fast bottom movement. The” instead of “For the first case with”. In this way you schematize the list cases. Line 237: for an easier reading I suggest that Figure 1c should be Figure 2; Figure 2 should be Figure 3; Figure 3a and Figure 3b should be Figure 4a and Figure 4b. Line 242: please write “Case 2 considers the slow sea bottom change” and remove the words “Another idealized situation with” and “is also considered in case 2”. Line 257: “the” instead of “this” Line 268: depth was previously indicated by d and not z , please use the same notation or explain. Line 283: please explain the parameters θ , g , t_0 , t Lines 289-292: the sentence is not clear, please re-write it. Line 296: remove the line, no need for a subsection on computer time comparison. May be move the lines 297-302 in the discussion part.

4. Discussion and Conclusions Line 303: generally it is written “Discussion and Conclusions” , please change “Conclusion and Discussions”. Lines 331-333: the sentence is too long and not clear. Please modify the text. Line 306: please note that after “:”

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the first word does not need the capital letter.,

Figure and Captions Not clear why the captions are written twice. Please re-organize the number of the figures as previously suggested.

Table Lines 414-415: suggestion to re-write the caption this way: "The SMF information to the southwest of Taiwan used in the tsunami simulation of Case 3".

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