

Interactive comment on “A GIS-based three-dimensional landslide generated waves height calculation method” by Guo Yu et al.

Anonymous Referee #2

Received and published: 29 October 2019

This manuscript provides the calculation method for 3D landslide surge height using spatial data processing capability of GIS. The reviewer believes that the subject of this manuscript is interesting but the following points should be clarified to recommend for publication.

1. The reviewer found some English syntax problems in the manuscript. The manuscript should be edited by English speaking natives.
2. In this manuscript, the authors compared the proposed approach to Pan Jiazheng method. In order to understand the improvement of the proposed approach, the brief explanation about the basic equations and calculation procedures of Pan Jiazheng should be introduced in Section 2.

C1

3. Section 3 is too short. The explanation about Fig. 7 may be included or this part should be included in section 2.8.

4. As the authors mentioned, the Pan Jiazheng method had been improved by Huang et al (2012) and Miao et al (2011). But the authors compared the results of the proposed approach only with the results of Pan Jiazheng, but not for Huang et al (2012) and Miao et al (2011). The reviewer believes that the results of the proposed approach also should be compared with the improved approached to show this approach is better than the previous ones.

5. In order to find out the feasibility of the proposed approach, the analysis results of the proposed method should be compared actual data of the landslide surge. However, the authors only compared the results with the those from Pan Jiazheng, which are also the calculation results. Since the authors mentioned in line 315-316 of the manuscript ‘the computational model of the 3D method better represents the actual spatial state of the landslide’, the authors should provide the comparison of the analysis results between the proposed approach and actual data.

6. The reviewer believes that one of the important part of the research paper is the discussion about the limitation of the proposed approach and the possibility of further improvement. So the reviewer recommends to include the discussion part in the manuscript.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2019-230>, 2019.

C2