

In answer to the anonymous referee #1 comments, we have some remarks to make. First of all we thank him for going through the manuscript and providing the following useful suggestions.

- The anonymous reviewer noted:

A possible suggestion to the Authors is to try to be pragmatic and concise limiting the discussion to the original contribute that research and paper would to give to the scientist community.

RESPONSE: Indeed. A thoughtfully review of this paper and results is going to take place before being re-submitted.

- The anonymous reviewer noted: In all three cases, the bathymetry comes from GEBCO (GEB-2008) dataset which has a resolution of 30 arc-seconds (approximately 1 km).

RESPONSE: We agree with the reviewer that this comment should be rewritten for the sake of clarity. The finer mesh size in the wave model was 1 km. For the morphodynamic model cases, the submerged part came from representative submerged data. Unfortunately, we didn't have submerged pre and post beach profile.

- The anonymous reviewer noted: To start the analysis, prior to modelling tasks, the differences between pre and post storm LIDAR bathymetries are calculated, helping to determine which processes must be reproduced by the morphodynamic model.” page 5, what does it mean?.

RESPONSE: The purpose here was to highlight that prior to modelling, an initial analysis was performed with the emerged LIDAR images. Thanks to this analysis, we had a first assessment of the more dominant processes and a guess of the result the model should be provided. However, we also consider that this comment could be rewritten before re-submitting the paper.

- The anonymous reviewer noted: There are any LIDAR bathymetric surveys? If yes, why do they not use such data to make validation of the simulation results?

RESPONSE: Indeed. We certainly agree that it should be very interesting the comparison with the bottom evolution. As mentioned above, we didn't have submerged pre and post storm beach data. It is certainly a limitation, but obtaining high resolution data before and after a storm is a challenging task and they are seldom available. For that reason, the analysis in our paper was primarily based on the available emerged data. In addition, we fully agree with the reviewer that this comment should be rewritten as well. Where it says “LIDAR bathymetries”, it must be changed for “emerged part” LIDAR topography.