

The reviewers has evaluated positively the latest version of your manuscript, which I consider now publishable subject to minor revisions (review by the editor).

We thank the reviewer and editor again for their time in reviewing our revised manuscript and we appreciate the recommendation that the manuscript is now publishable with minor revisions. In the new revised manuscript, we have addressed the comments below.

It is important that you consider the following suggestions of the reviewer.

- Calculation of infragravity wave height over the profile.

This part is now publishable provided that the authors add a few sentences to further highlight the limitations of their approach. Besides the use of a very simple model to describe IG shoaling for instance, other important limitations include the fact that the IG wave period, which is a key parameter in several stages in the modeling exercise, is arbitrarily estimated as 12 times the short wave period, and the fact that full modulation of the wave field is assumed (so amplitude varying between H and 0) which means that the IG wave forcing is (severely) overestimated.

We agree and have added a paragraph dedicated to highlighting these limitations in lines 360-364 of the new manuscript.

- Calculation and use of the reflection coefficient.

The link between reflected IG wave height (defined as $R \cdot H_{ig}$) and runup (explained around line 405 of the 'track-changed' manuscript) is not obvious. The authors should either add references to back up their claim with references, or to simply remove the part of the manuscript discussing the reflection coefficient (and its use as measure for run-up) which is not convincing (as is) and not key to the story.

We added three well-cited references to support the link between wave reflection and runup, in particular in the infragravity frequency. We also further clarify that this link is due to the oscillations from standing waves associated with wave reflection. These are added in lines 375-379 in the revised manuscript.

As a side note (only relevant if the authors decide to keep the part involving the reflection coefficient), the authors derived their own estimate of the relation between R and β_H based on van Dongeren et al. (2007)'s figure ($R=0.5 \cdot \beta_H$) because according to them this relationship is not given in the paper. That's incorrect: R is explicitly defined in van Dongeren's paper as $R=0.2 \cdot \pi \cdot \beta_H^2$.

We believe that this relationship ($R=0.2 \cdot \pi \cdot \beta_H^2$) is actually for short waves from a different work (Battjes 1974) rather than for the R vs β_H data in van Dongeren et al. (2007). van Dongeren et al. (2007) writes: "For short waves, Battjes [1974] found a relation between the reflection coefficient at the shoreline R and the surf similarity parameter, which can be rewritten using equation (7) as $R=0.1 \cdot x_i^2=0.2 \cdot \pi \cdot \beta_H^2$. This relationship (solid line in Figure 3) appears to also apply to low-frequency waves, albeit that there is considerable scatter." It can also be seen from their Figure 3 that the relationship considerably overestimates the data of van Dongeren (2007) at higher β_H (higher than $\beta_H \sim 1$). Nevertheless, we removed the phrase "Although not explicitly stated in van Dongeren et al. (2007)" and simply states that we use $R=0.5 \cdot \beta_H$ based on the results of van Dongeren et al. (2007).

- The revised part of the manuscript contains several typos (units are not provided, spaces are missing, etc.) that need to be fixed.

We have fixed typos in the new manuscript.