

Interactive comment on “On the Resonance Hypothesis of Tsunami and Storm Surge Runup” by Nazmi Postacioglu et al.

Nazmi Postacioglu et al.

ozerens@itu.edu.tr

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Responses to the referee-III

The general view of the referee is that the manuscript is too long and the main ideas are obscured by mathematical details. We significantly shortened the manuscript and shaved off some of the maths. The referee also rightly points out that the section-5 did not have a conclusion which we now added. We did not remove the nonlinear section due to the insistence of the first referee. However the resonant frequencies that we give in the tables are independent of nonlinearities. Another point raised was that the 2-D case would be better left to another paper. Well, we are more inclined to keep it because in realistic bathymetries the cases where the resonance is important are often bays (as is clear from the manuscript, in 1-D case, resonance becomes significant only for unrealistically high bathymetric discontinuities). However, following the advice of the referee, we considerably shortened the 2-D section. Below are the responses to the particular comments.

1. The referee mentions: "References to Stefanakis, Dias and Dutykh (2011); Stefanakis, Xu, Dutykh and Dias (2015) are not precise as some of the authors have been left out."

Corrected

2. The referee mentions: "The authors use the notation "transient runup" in the sense that a monochromatic wave starts to be generated at a given instant. This is not

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the conventional definition of a transient phenomenon and the notation should be corrected accordingly."

We removed the word "steady" as it can indeed lead to confusion. We mean standing waves of constant amplitude. Corrected. We used "transient" for the waves that occur before the settling of the standing wave regime. We explain this in the revised manuscript.

3. The referee mentions: "Conclusions made on page 7, lines 5 – 10 are very much to the point. Bring them forward and make sure that they come across to the reader"

The referee-1 wants us to remove these lines but we want to keep them because, as suggested above by the referee comment, the gravity of the manuscript sits there.

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