

## ***Interactive comment on “Subharmonic resonant excitation of edge waves by breaking surface waves” by Nizar Abcha et al.***

### **Anonymous Referee #1**

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The article touches a physically interesting phenomena of half-frequency edge waves. Results look interesting and useful in the context of shore wave dynamics.

A few points need to be expanded though.

1) It is worth presenting the raw data explicitly displaying the period doubling effect. ADV versus wave gauges? Difference between wave gauge reading?

2) The flume is narrow hence parameters of transverse oscillations are somewhat defined by its width. It is worth commenting on the choice of excitation frequency. It could happen that secondary waves may appear due to asymmetry of the wavemaker or some other parameters of the flume. Transverse waves do routinely appear in such flumes all the time and the mechanisms can vary.

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3) How the influence of reflected waves is accounted for? Duration of the experiment is not that long so talking about rising/receding wave amplitude should be accompanied by discussion of the applicability of the assumption about the incident wave parameters. Well.. ideally, incident wave parameters should be measured by an array of wave gauges.

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Interactive comment on Nonlin. Processes Geophys. Discuss., doi:10.5194/npg-2016-63, 2016.

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