

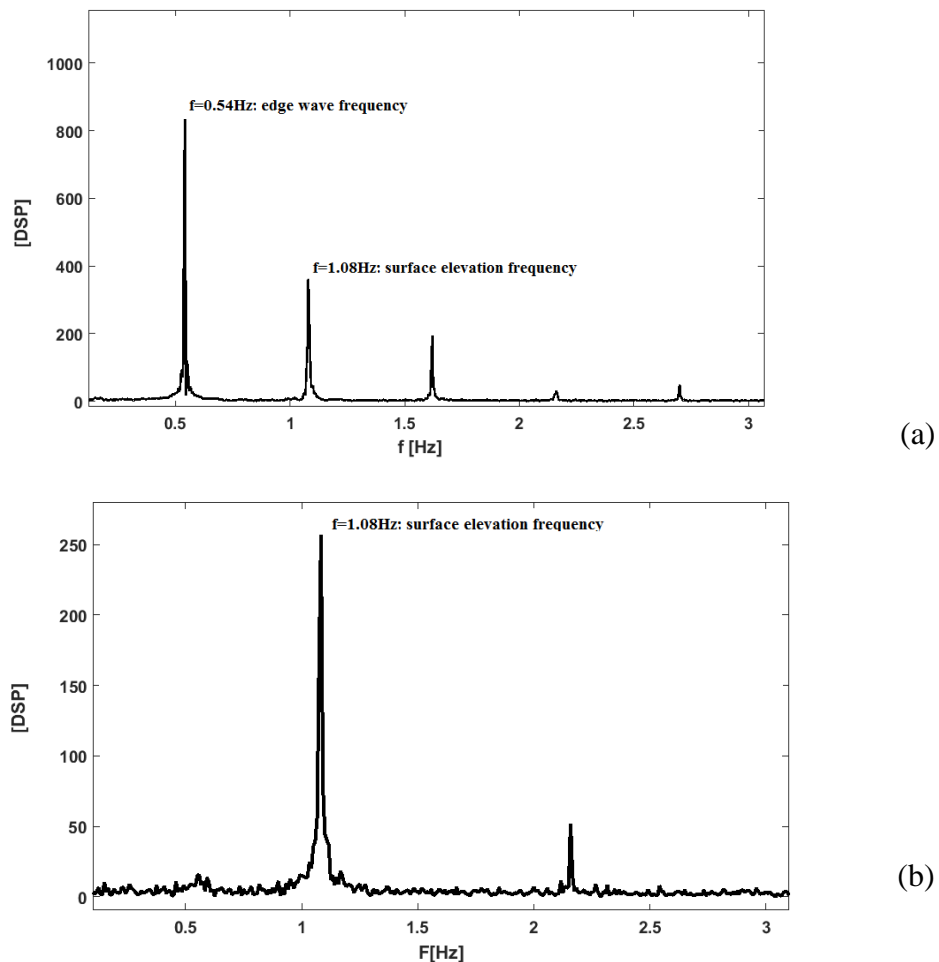
### Subharmonic resonant excitation of edge waves by breaking surface waves

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We thank the reviewer for his thoughtful critiques of our manuscript. We have adopted all of his suggestions. Our point-by-point response to the comments and questions is given below.

(i) *To have more confidence in claims' authors, it should be more useful to use frequency spectra of the surface elevation, namely to demonstrate quantitatively the period doubling and edge wave suppression.*

We have added a new Figure 3, where we show two frequency spectra. The first spectrum (Figure 3 a) is in absence of the breaking waves, where the first peak indicates the edge wave frequency and the second peak indicates the surface elevation frequency. The second frequency spectrum (Figure 3 b) is plotted in presence of breaking wave and indicates the suppression of the peak for the edge wave frequency.



**Figure 3. Power spectrum frequency: (a) in absence of breaking waves: the first peak indicates the edge wave frequency, while the second peak indicates the surface elevation**

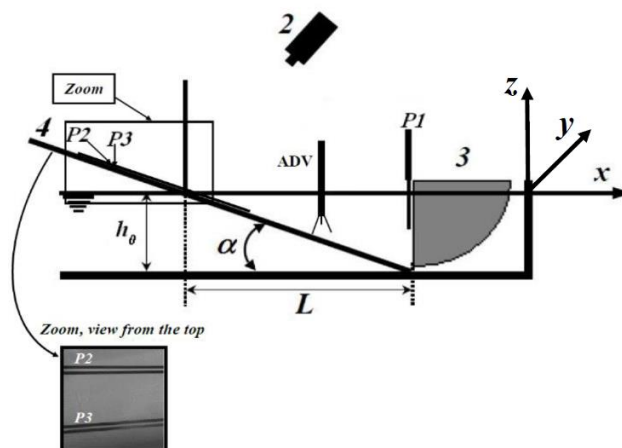
frequency; (b) in presence of breaking waves: the peak for the edge wave frequency is suppressed.

(ii) In equation (9) specify  $b^*$  (complex conjugate).

Added after Eq. (9): " $b^*$  is a complex conjugate"

(iii) In figure 1, plot axes  $z$  and  $y$ .

Done.



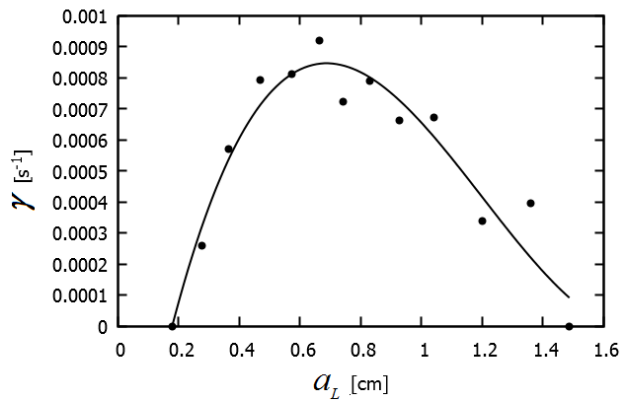
**Figure 1. The experimental set-up: resistance probes: vertical (P1) and horizontal (P2, P3), a high-speed video camera (2), a wave maker of a piston type (3), an inclined bottom (4), and ADV.**

(iv) What kind of wavemaker is used?

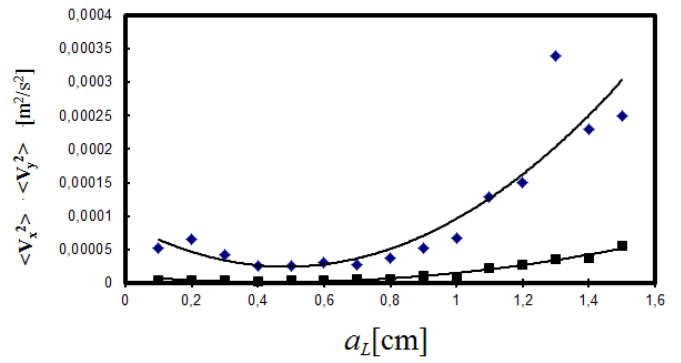
Added on Page 3: "The flume is equipped with a piston type of wave-maker controlled by the computer", see also the caption to Figure 1.

(v) I assume that in figure 5 the solid lines fit the experimental data.

The caption to Figure 5 (now 6) has been changed:



(a)



(b)

**Figure 6. (a) Dependence of the exponential index of parametric instability  $\gamma$  on the surface wave amplitude  $a_L$ , shown by the black dots, and (b) dependence of the kinematic turbulent energy components on the surface wave amplitude  $a_L$ ;  $V_x$  is shown by blue diamonds, while  $V_y$  is shown by black squares. Solid lines represent a fit to the experimental data.**

(vi) *The English must be improved.*

The language has been corrected