

Dear Professor Victor Shrira,
thank you for the essential help in correcting of the manuscript.

Here is the list of comments and corresponding changing.

- ***The title: “Dynamical resonance model for Benjamin-Feir instability of waves in the presence of current”***

is changed to ->

“An analytical model of the evolution of a Stokes wave and its two Benjamin-Feir sidebands on nonuniform unidirectional current” .

- ***Abstract: I could suggest, for example: An analytical weakly nonlinear model of Benjamin-Feir instability of a Stokes wave on nonuniform unidirectional current is presented. Second sentence - I would suggest: The model describes evolution of a Stokes wave and its two main sidebands propagating on a slowly varying nonuniform unidirectional steady current. In contrast to the models based on versions of the cubic Sch-r equation the current variations could be strong, which allows us to examine the blockage and consider substantial variations of the wave numbers and frequencies of interacting waves. I think that before jumping to the results it would be desirable to have a couple of sentences about your assumptions and explain what you are doing.***

- An analytical weakly nonlinear model of Benjamin-Feir instability of a Stokes wave on nonuniform unidirectional current is presented. The model describes evolution of a Stokes wave and its two main sidebands propagating on a slowly- varying steady current. In contrast to the models based on versions of the cubic Schrodinger equation the current variations could be strong, which allows us to examine the blockage and consider substantial variations of the wave numbers and frequencies of interacting waves. The spatial scale of the current variation is assumed to have the same order as the spatial scale of the Benjamin-Feir instability. The model includes wave action conservation law and nonlinear dispersion relation for each of the wave’s triad. The effect of nonuniform current apart from linear transformation is in the detuning of the resonant interactions, which strongly affects the nonlinear evolution of the system.

The rest of the abstract is OK, except the words “resonance model”. These words should be avoided in the abstract and the rest of the manuscript. On having specified your model in the first sentences you can later to say just “the model”.

- “resonance model” is changed to “the model” at the rest of the manuscript

l.42: Again “wave resonance”: it is not clear. You have to explain it once.

- “wave resonance” phrase eliminated

l44-48: I would suggest to delete these lines.

- 44-48 lines deleted

l66: “long-scale current”, the use of the term is wrong throughout the manuscript. Here you mean slowly-varying current.

- “Long-scale current, large scale current” is changed to “slowly-varying current” throughout the manuscript

l94: The use of the word “gradual” is incorrect throughout the manuscript. Here is better to use “small”.

- “gradual” is changed to “small” throughout the manuscript

l133: The sentence is incomprehensible.

- The sentence revised: We take into account the dissipation effects due to wave breaking by utilizing the Tulin wave breaking model (Tulin (1996); Huang et al. (2011)).

L195: The use of “zero-dimensional” is incorrect here and throughout the manuscript

“zero-dimensional” is changed to the original: “dimensionless or no dimensional” throughout the manuscript (this confusion is resulted due to “professional editing”)

Some more corrections are made in the revised manuscript and marked by green and red colors.

Thank you again for taking care about our manuscript.

Sincerely

Igor Shugan