

Review
on the revised manuscript
by L. Shemer and B. K. Ee
“Steep unidirectional wave groups – fully nonlinear simulations vs. experiments”
submitted for publication in journal “Nonlinear Processes in Geophysics”.

Unfortunately, not all of the authors’ arguments against my suggestions have convinced me. Therefore I would like to further clarify my viewpoint below. I leave the final decision to the discretion of the Editor.

1. Periodic boundary conditions.

I still insist that periodical boundary conditions do not prevent occurrence of the Stokes drift, and thus the Stokes drift should be naturally captured by the employed fully nonlinear numerical model for potential Euler equations. The Stokes wave solution, which is periodic (does not contain a mean current term), and at the same time possesses the Stokes drift, is a brilliant example (e.g. book by H. Lamb, Hydrodynamics).

Thus this argument cannot explain supposed deficiency of the numerically obtained results.

2. The bibliographic review is lopsided.

The authors explain their position as follows:

"Shemer and Alperovich (2013) [hereafter referred to as SA] demonstrated that there were essential deficiencies in the original paper by Chabchoub et al. (2011). The spectra presented in JGR (2013) do not contain any quantitative data and hardly qualitative information as well, in a sharp contrast to SA. In private discussions with Amin Chabchoub, no evidence was presented by him to counter the points highlighted in SA. For these reasons, these two papers were not cited in our study."

In my opinion the authors' explanation does not excuse not referring to the group, which has performed a series of experiments in very similar statements, and has confirmed that the weakly nonlinear breather solutions may be to some extent reproduced in a laboratory. The works by Chabchoub and colleagues are well-documented and widely recognized. Indeed, they do not describe the effects in detail, but the format of rapid communications in *Physical Review* journals does not require it.