

## ***Interactive comment on “Rogue waves in a wave tank: experiments and modeling” by A. Lechuga***

**Anonymous Referee #2**

Received and published: 10 September 2013

The author has addressed some of my concerns and the paper may be acceptable. However, I would suggest adding some clarifications, following the hand-written derivation in the latest author's response. It indicated now that eq. (1) is dimensionless. The relation between the dimensionless quantities and the measurable parameters remains not fully clarified. It should be clearly stated that the solution of the steady version of (1) is presented. I suspect there are some errors in the figure added in the reply. While  $\xi$  is apparently dimensionless (provided the dimension of  $\sigma$  is  $m^{-2}$  and not  $m^2$  as mentioned in the text),  $\eta$  seems to be a dimensional parameter. This is not fully obvious, though, as a new parameter,  $\omega$ , is introduced, the meaning and dimension of which are not specified. Also, the dimensional frequency that appears in Fig. 3 is apparently scaled, but time scaling is not given. This brings me back to my earlier comments about 1:39 scaling used partially in the manuscript. I fully agree with the author that scaling is commonly used in structural models. Nevertheless, this paper has nothing

C1129

to do with structural modeling, so in my view the use of scaling is inappropriate here and only leads to misunderstanding. Once the issue of the relation between the dimensional and dimensionless parameters is fixed, the manuscript can be accepted for publication.

---

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 1, 3201, 2013.