

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

E. Bitner-Gregersen (Editor)

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Dear Author,

I have a pleasure to inform you that your manuscript is accepted for the publication in the NHESS Journal under conditions that the comments received from the Referees are accounted for in the final version of the manuscript. They will improve significantly the quality of your paper. I've got additional comments from a new Referee who did not know how to include them on the web-site and therefore missed the deadline for submitting comments. He passed them to me by e-mail and he would like to be anonymous. His comments were also passed to the NHESS Editorial Board. I'm including the comments below and would like to ask you to account for them in the final version of the manuscript.

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With best regards,

Elzbieta Bitner-Gregersen

Comments from Referee#3 _____

I have written the rather detailed referee report in order to aid the author in improving his paper to the level of the international literature. I personally think that the author has a publishable result here, but he needs to work hard to make it a polished, professional piece of work. The report below gives a list of suggestions to do so. The other referee has expressed considerable frustration with the author for not writing clearly his results and for not fully explaining how he obtained his results. I too have similar frustrations, even after some attempt by the author to improve his manuscript. The English is still not very good, for there remain several grammatical errors and several statements that are quite confusing and unclear to the present referee. The author has also not addressed the state of the art in the literature on experimental measurements of rogue waves. He should refer to the books by C. Kharif, E. Pelinovsky, A. Slunyaev, *Rogue Waves in the Ocean* (Springer-Verlag, Berlin, 2009) and A.R. Osborne, *Nonlinear Ocean Waves and the Inverse Scattering Transform* (Academic Press, International Geophysics Series Volume 97, Boston, 2010) 944 for a more complete list of experimental papers on laboratory experiments of rogue waves. There are also many other papers after the publication of these books that the author should consider (please look at the papers by Toffoli, and Bitner-Gregersen for valuable references). The author should make himself aware of the literature, especially with respect to the literature generated by the European program Extreme Seas. Please note that many of these papers in the literature give quite detailed explanations of the nonlinear Schrödinger equation as an appropriate model equation. The author seems instead to prefer to also consider the effects of dissipation by using the GL equation. Yet, many of the references given above have already discussed the effects of dissipation, but none of these are referenced in the manuscript. Recent works conducted over the past 10 years at Marintek, whose wave tank is nearly 300 m long, have discussed dissipation. The author of the present

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manuscript does not reference any of these works and this is particularly surprising because his own tank is only 36 m long and clearly has less dissipation than in many papers in the literature. Therefore, he should make clear what role dissipation plays in his data analysis. Why does he even include dissipation since his tank is so short? How much dissipation does he have? Why does he need the GL equation at all since its main contribution over the NLS equation is the inclusion of dissipation?

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

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