

Interactive comment on “Localized Coherence of Freak Waves” by A. L. Latifah and E. van Groesen

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We apologize to the referee for the fact that we did not make the remarks about the restriction to uni-directional waves more explicit in the revised manuscript. This is now improved by adding the following sentences in the Introduction, including some references, see page 2, starting at line 10, as follows:

"In addition to the references cited above, we will contribute in understanding the process and the origin of freak wave appearance in random wave fields that is mainly based on dispersive effects. In realistic sea states a directional spreading could possibly influence a dispersive focussing effects (Prevosto, 1998). Also Johannessen and Swan (1998) concluded that the introduction of directionality significantly reduces the nonlinearity of wave groups. That nonlinearity gives little or no extra amplitude compared to linear extreme events, but that shape of the extreme crest is

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changed was also observed by Adcock et al. (2015). In this paper, we will not take directional spreading into account, but will restrict to long-crested, uni-directional waves."

Johannessen, T. and Swan, C.: Extreme multi-direction waves, Coastal Engineering Proceeding, 1(26), 1998.

Adcock, T. A. A., Taylor, P. H., and Draper, S.: Nonlinear dynamics of wave-groups in random seas: unexpected walls of water in the open ocean, Proc. R. Soc. A, 471, 2015.

Prevosto, M.: Effect of Directional Spreading and Spectral Bandwidth on the Nonlinearity of the Irregular Waves, in: Proceedings of the Eighth International Offshore and Polar Engineering Conference, pp. 119-123, 1998.

Please also note the supplement to this comment:

<http://www.nonlin-processes-geophys-discuss.net/npg-2016-31/npg-2016-31-AC3-supplement.pdf>

Interactive comment on Nonlin. Processes Geophys. Discuss., doi:10.5194/npg-2016-31, 2016.

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