**Interactive comment on** “Inverse Gaussian distribution of wave set-up heights along a shoreline with complicated geometry” by Tarmo Soomere and Katri Pindsoo

**Anonymous Referee #2**

Received and published: 4 March 2017

The paper addresses a particularly interesting point and that is why the nature and frequency of high water level (surge and setup) events is different to and often more extreme than expected. I found the paper confusing in places, and I encourage the authors to rewrite the paper with clarity of methodology in mind.

I am not an expert in extreme value statistics, and leave it to other referees and contributors to comment on that aspect of the paper. The results, however, point to a number of important considerations, in particular the sensitivity to the application of radiation stress and the data requirements for its appropriate consideration. The next (but difficult) step would be some field measurements to compare to the model results.

There are numerous grammatical errors that need to be corrected. I would be happy to undertake an edit, but they are too numerous to do without having access to an easily editable version of the paper (not pdf).

I ask that the authors review their axis labels and figure captions. eg

**Figure 2** - should the y axis be ‘onshore’ and it is not a % Figure 3 - units on y axis

I think the paper is worthy of publication subject to rewriting, perhaps more than minor, but not major.

---