Anonymous Referee #2
Received and published: 23 February 2018
The authors have made a good work to present the spatial pattern of wave extremes in the South Atlantic Ocean by using multiple altimeter data from 1993 to 2015. They used the two-day temporal window and 2° spatial window to get the database and they use that database captured more information than traditional method. However, the paper lacks for details for the reader to be able to fully review these results. The main remarks concern:

(1) The multiple altimeter data is the key for this paper, so more details about the database should be given, such as the accuracy of the database. Which altimeters have been used to produce the database? And how to make the quality control?
R: The description of this aspect was improved in Methods section (P3, lines 25-34). Also, please refer to response to question 1 from Referee #1.

(2) Need to prove that your method is right, nor just compared with other results. Can the buoy data be used to prove your method?
R: As described in Results and Discussion section, the comparison of our results with buoy data (Figs. 3 and 4) demonstrate that our method is a valuable approach to capture short term variability.

(3) A deeper conclude your results using the tables and figures, and refine your presentations.
R: Conclusions section was improved.

(4) Capturing more information on shorter time scales is the characteristic and innovation, give the relationship between the capturing more information and the Estimation of extreme wave heights return period.
R: We agree with the reviewer. A sentence about this point was included in the Conclusions section.