We acknowledge the comments of the reviewers, which will contribute to significantly improve the paper. Please find enclosed below our response (indented in blue) to the reviewer comments, clarifying some issues.

The methodology used in this work is poor for several reasons, the discussion is very hard to read because it is not concise and well structured at all, and the inter model variability and the inter harbor variability are so large, that the only conclusion is that no conclusions can be given.

As mentioned below we agree that the discussion of the results might be a bit hard to follow so we will review and rewrite this part of the manuscript in order to clarify the conclusions. However, we think that the adopted methodology is appropriate for this study as explained below as well.

In regard with the methodology it is not mentioned which is the spatial resolution of the SWAN model application used by the previous Casas-Prat and Sierra (2013) study, that is used for this work, and it is very hard to understand why a higher resolution application is not implemented for this work, instead of propagate the previous of the results. The only explanation given by the authors is the lack of high resolution bathymetries, but with digitalized nautical charts, a very high resolution bathimetry can be obtained. Is the usual way to develop a high resolution SWAN model application.

The methodology used to obtain the wave projections is explained in Casas-Prat and Sierra (2013). However, to avoid ambiguities, we will specify the spatial resolution (0.125º) in the revised version of this study.

A higher resolution application of the SWAN model would of course provide more precise results. As we mentioned in the paper, the lack of detailed bathymetries prevented us from doing so. In fact, we tried to follow this approach obtaining bathymetries from digitalized nautical charts. The available charts for the Catalan Coast from the Spanish Hydrographic Institute (*Instituto Hidrográfico de la Marina*) have scales that range between 1:5,000 and 1:95,600. This means that in some points of the coast there are nautical charts with scales between 1.5,000 and 1:20,000 which can be used for this purpose. However, large areas of this coast are covered by charts with scales lower than 1:90,000 which have low resolution and where many details are missing or poorly described (e.g. small ports like some of the studied here). Therefore we concluded that the approach applying SWAN to propagate waves towards the ports could be applied only for some ports. For this reason and considering that in all the studied cases when propagating waves towards the port, the diffraction effects (due to the presence of geographical accidents) are negligible, for the sake of using a homogeneous approach for all the ports we decided to use linear theory.

Moreover, the scope of the paper (the analysis of several ports within a regional scope) is focused in analyzing the difference between future and present

conditions based on the changes in the distribution of wave directional frequency, so the use of linear theory does not introduce any bias in the results. Taking into account this, the large variability of the wave climate projections and the fact that propagated (with linear theory) wave conditions are still used sometimes to assess coastal and harbor impacts we believe that the used methodology is appropriate.

On the other hand the method to associate a peak period to each wave situation it is not well justified.

The use of expressions of the type: $Tp=aHs^{b}$ is the usual method employed by the Spanish Harbour Authority (*Puertos del Estado*) in its buoy network to associate peak period and significant wave height. We will add a reference to explain this in the revised version of the paper.

The section 4.1 is really hard to follow. It should be much more concise. A port by port, case by case description is tedious and don't give much information
Finally, as it has been said, the inter model variability is too large and not well explained. It is almost impossible to get any conclusion.

We agree that the intermodal variability is large and this is precisely why it becomes sometimes hard to discuss the disparity of some results but this does not mean that no conclusions can be derived. In fact the large inter-model variability and the uncertainty that it introduces in the study of impacts due to climate change is a conclusion itself. In addition, we think that the spatial and seasonal trends found are also conclusions of the study.

Finally, since we have realized that the discussion of the results is a bit hard to follow, as mentioned before, we will revise and rewrite this section in order to provide a better discussion.