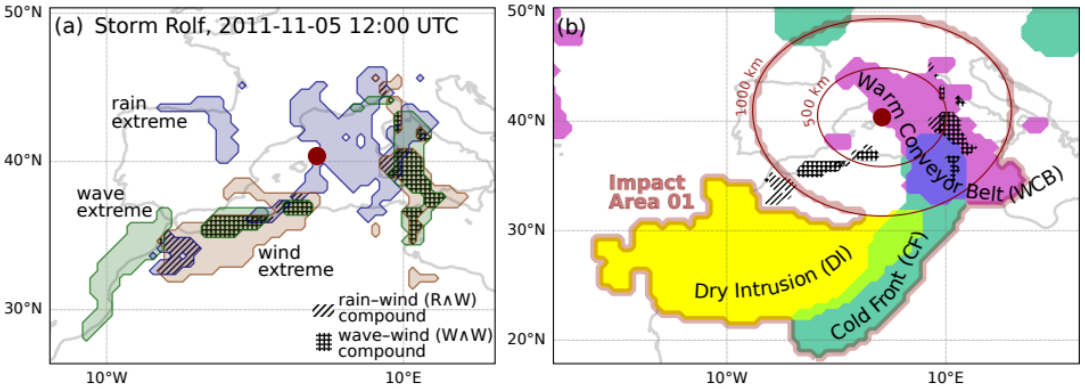
We thank Paolo De Luca for his constructive comments on the manuscript. We will include his suggestions in the main manuscript as detailed in the line-by-line answer below. Note that the reviewer's comments are in **black text**, our answers in **red text**.

REVIEWER 1: Paolo De Luca

The paper by Portal et al. addresses an important thematic that in general deserves more attention by the community, which is the identification of dynamical drivers of compound extremes. In the paper, the authors focused on Mediterranean cyclones and compound rain-wind, wave-wind extremes, within the reanalysis period 1980-2019. They introduce a new definition of cyclone's impact area and assess how three different dynamical features contribute to the occurrence of the extremes. Then, they also quantify the most frequent cyclone type linked to the extremes and provide a discussion of their results.
The paper is sound, well written and therefore suitable for publication in WCD. Below you find some major and minor comments that I hope the authors will address in the review process.

Major comments:

- Figure 1(a) it is difficult to distinguish between the Rain-Wind and Wave-Wind. Instead of hatchings you may consider to use two colors and maybe try to zoom over the Mediterranean.
  We include below (and in the manuscript) a new version of Figure 1. In panel (a) we have zoomed closer to the cyclone and we have changed the visualisation of the extreme patterns, hoping this can also facilitate the visual identification of the compounds.



- Figure 2 I suggest to express the compound frequencies as percentages (%). This will be easier to understand. If I understood correctly, you can simply multiply the current values by 100, in order to get the % of days with compound extremes within each season. Same for Figures 3,4,5,7.
  We will change the notation from ratio to percentage.
- Figure 4(d)-(f). Please consider doing a statistical test to assess whether the frequency of compound extremes during cyclones is significantly different that the frequency of compound extremes when cyclones do not occur. You can try for example a proportion test. Same for Figure 7(d)-(f).
  Although we cannot yet show the results due to time constraints, we are willing to compute the test and to include the results in the new version of the manuscript.

Minor comments:

L7 "weather compounds" is not clear.

Has been corrected with « compound extremes ».
L15 “of wave-wind extremes” not clear. Maybe “and wave-wind extremes”.
Has been corrected with « and of », where the preposition « of » refers to high incidence.
L22 Please don’t cite Wikipedia. I suggest to look first for peer-reviewed papers and then online newspaper articles from for example BBC, CNN, the Guardian.
We have replaced the Wikipedia link with two online articles from DWD monthly weather report and from The Washington Post.
L25 “compound extreme event”
Has been corrected.
L31 you may consider to add https://rmets.onlinelibrary.wiley.com/doi/full/10.1002/qj.3757
We added the reference as suggested.
L49 I prefer to say “to compound extremes” instead of “to weather compounding”. The latter terminology sounds a bit awkward and does not strictly refer to extremes.
We thank the reviewer for the useful correction, and have corrected the text.
L66 “compounding” or “compound”?
Has been corrected.
L69-79 please move it before L63, so that the description of the Sections will be in sequential order. You can also consider to convert L63-68 into sentences, i.e. not questions.
Although we understand the reason for the reviewer’s suggestion, we prefer to maintain this order in the text because we believe that the present flow highlights the main research questions, rather than the more subtle methodological question on compound attribution.
L88-89 ”Moreover, the results…”. Here in the Methods, I would simply state that you tested other percentile thresholds, also without referring to the figures. Then in the Results section, after you presented the plots, you can state “The above results are not sensitive to the….etc” also referring to the SM figure.
We have modified the text as suggested.
L122 “1979 to 2020”. Didn’t you use “1980 to 2019”?
We have corrected giving the number of cyclones in the period 1980 to 2019.
L133 “weather compounds” please amend with “compounds” or “compound extremes”
Has been corrected.
L138 “schematic” or “scheme”?
We have replaced with « scheme ».
L141-151 introduce the dynamical features in the same order as L137. Or vice versa.
We have reversed the order in L137.
L152 same as above.
The order is now consistent across the Section. We thank the reviewer for pointing this out.
L187-191 move to Results or Discussion section.
We have shifted and adapted the paragraph to the Discussion section.
L211 “(Fig. 2)”. Remove it
Has been removed.
L213 “compounds” and add full stop.
We have specified « maximum compound frequency » in the line above, although we are not sure this addresses the reviewer’s correction.
L222 “weather compounds” change here and all over the text as mentioned before
This has been amended throughout the text.