

Review for “Intraseasonal variability of wind waves in the western South Atlantic: the role of cyclones and the Pacific South-American pattern” by Sasaki et al.

I acknowledge most of the authors responses – I believe I did not read carefully in places, but I am glad we identified so errors too, so the manuscript is largely ready to go. I still have a few questions/comments that I would like to see addressed before publication.

Comments:

l. 73: atmosphere -> atmospheric

Table 1: I am still confused by the negative values in the table. Are they a consequence of different signs of the EOFs and hence of the PCs (they do have arbitrariness in sign)? E.g. EOF1 swl & EOF1 v10 correlation is negative. Is this because EOF1 swl is e.g. a positive monopole and EOF1 v10 is a negative monopole? Therefore correlation of the corresponding PCs is negative? But it means that stronger swl is related to stronger v10 as alluded to in the text?

- If this is true then I find this confusing. I would usually choose a sign of the EOF (e.g. positive monopole in an EOF) and then multiply PCs and EOFs by (-1) if the sign in the EOF is opposite. That way I can avoid this confusion. I recommend doing this, since I think this would make it much easier for the reader.
  - Given Fig. 5 I guess I would choose negative monopole to keep the additional work to a minimum.
  - Also, if this issue only applies to the correlations in Table 1 and you know all correlations would be positive if you defined all EOFs in a consistent way then you can just drop minuses in the Table 1 and that’s that.
- If this is not true, I would recommend addressing this in the text – i.e. saying negative correlations mean stronger swl, weaker v10; positive correlations mean stronger swl & stronger v10 (v10 & swl here are just examples; feel free to adjust).

l. 199: “the wind and wave fields are partially coupled through wind waves” – do you mean they are “only partially” coupled? Since the amplitude is small and remote effects lower the links?

l. 288: n -> in

l. 291: Green dashed lines -> Thin green dashed lines

l. 293: light green dotted lines -> thick green dotted lines

l. 285-294: You mention westward propagating waves – are periods that show westward propagation related to e.g. larger (more planetary) waves, rather than synoptic waves (in scale)? Or is it largely same waves propagating eastward/westward? If the latter then no need to add any sentences.

I. 297-303: You say that phase A has stronger wind, but weaker storm track, lower swh? But I thought you established a positive baroclinic feedback where stronger winds also have stronger storm track. Am I missing something again? Also because you then continue on saying “on the other hand”, phase B has weaker winds, weaker storm track .....

Fig. 12: This figure is not mentioned anywhere thus redundant – please remove it or discuss it . I also find the figure confusing – there are linear relationships, but one shows negative the other positive regression coefficients. Is that again due to PCs having inconsistent signs?