

Open Review

- () I would not like to sign my review report
 (x) I would like to sign my review report

English language and style

- () Extensive editing of English language and style required
 () Moderate English changes required
 (x) English language and style are fine/minor spell check required
 () I don't feel qualified to judge about the English language and style

	Yes	Can be improved	Must be improved	Not applicable
Does the introduction provide sufficient background and include all relevant references?	(x)	()	()	()
Are all the cited references relevant to the research?	(x)	()	()	()
Is the research design appropriate?	()	(x)	()	()
Are the methods adequately described?	()	(x)	()	()
Are the results clearly presented?	()	(x)	()	()
Are the conclusions supported by the results?	(x)	()	()	()

Comments and Suggestions for Authors

I have read the manuscript entitled "Dynamics of Precipitation Anomalies in Tropical South America" again. The objective of the manuscript is to study the teleconnections and dynamics related to precipitation anomalies in Tropical South America over a longer period, using precipitation and circulation data from 1931 to 2016. The paper has improved a lot after the first revised version. However, there are still some points that need to be revised before publication.

- 1) **LINE 73:** The full name of GPCC should be given when its first appearance.

R: We have implemented this change.

- 2) **LINE 139:** What's the meaning of the "positive phase", which should be defined clearly.

R: We thank the reviewer for this comment. We have introduced a description of what these maps of the positive phase show in the Methods section. Please refer to lines 128-130 in the revised version of the manuscript.

- 3) **LINE 190:** The process description should be given more details.

R: We have added a short paragraph summarizing the evidence that demonstrates that PC1 is related to the SACZ intensity. Please refer to lines 194-197 in the revised version of the manuscript.

- 4) **LINE 205-207:** I don't understand why you put the last sentence here?

R: We thank the reviewer for this comment. We agree that the purpose of the sentence was not clear. We have added more details now. The purpose is to connect it to the start of the next Section about PC2 which starts comparing the time scales of variation of PC1 and PC2 timeseries and associating this to the relevant processes (short time scale changes in SACZ intensity vs longer time scale ENSO fluctuations).

- 5) **LINE 216:** This description is not appropriate. The time scale of the extremes of the amplitude of the first PC is shown in Figure 5a.

R: We thank the reviewer for this comment. We have made this sentence clearer now, citing Figure 5a when referring to PC1 and Figure 5b when referring to PC2.

- 5) **LINE 323:** Figure 3(c) is a boxplot of the normalized magnitudes of PC3 month by month, which cannot reveal that the magnitudes of PC3 are greater for the negative phase than for the positive phase.

R: The normalization of our data was performed by dividing each PC time series by the maximum of the absolute value for each time series. We did this because we wanted to keep this relevant information in our data. Therefore, the figure reveals that the magnitudes of the negative phase of PC3 are greater than for the positive phase. We have clarified this in the Methods section.