**Open Review**

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

English language and style

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

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|  | 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”. 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 during 1931-2016. The data of this paper is rich and its conclusions and analysis are interesting. However, there are still some points needed to be revised before further acceptance and publication.

* **LINE 18-19:**It seems that “knowledge” should be conclusions?

R: By “knowledge” we meant state of the art literature, we have made this clearer now, we thank the reviewer for this observation.

* The methods of the manuscript should be introduced in the abstract.

R: We have stated the methods used in our research in the abstract. We thank the reviewer for this comment that has improved the content of the abstract.

* **LINE 75-77:**difficult to understand.

R: We have rewritten this sentence; we believe it is clearer now.

* **LINE 110:** Why remove the time-mean yearly(seasonal) cycle before Principal Component Analysis (PCA) is performed on the precipitation data? And how to remove the time-mean yearly(seasonal) cycle?

R: The seasonal cycle was removed because our interest is to study precipitation anomalies, which are better observed once the seasonal cycle is removed. Furthermore, when we applied the PCA analysis before removing seasonality, the first 2 PCs were related to the seasonal cycle, and they explained over 70% of variability in the data. This obscured the variability that we aimed to analyze in our manuscript.

The seasonal cycle was removed by calculating the seasonality of rainfall for each pixel in our dataset and then removing this cycle from each pixel timeseries. In this way, we kept values above or below average only (i.e., anomalies).

* **LINE 120:**Please specify the range of the “10 years”, Because the period you provided on the page is 1931-2016. And why did you choose 10 years to analyze?

R: We did not a analyze a 10-year period. What we did was to take the 10 years with the maximum values in each PC time series and the 10 years with the minimum values in the PC time series. We did this to build the composites that are respectively representative of the positive and negative modes of the PCs. This is how the data for Figures 4, 6, 7, 8, and 9 were selected.

* **LINE 163:**Why choose DJF composites and PC1 to analyze VIDMF anomalies?

In section 3.1 we analyze the circulation anomalies related to PC1. Figure 3a shows that PC1 is mainly related to the DJF season, when the SACZ is more active. As we hypothesized that PC1 is related to the SACZ and we already found from Figure 3a that the amplitude of this PC is higher in this season, we chose to analyze the variable of interest (in this case VIDMF) for the DJF season.

* What is “15 g kg -1ms-1” at the bottom of figure 4?

R: The arrow and the label 15 g kg -1ms-1 the scale for the figure. The arrows in the figure show moisture flux in g kg -1ms-1, The arrow is the size corresponding to 15 g kg -1ms-1

* The characters should be adjusted larger in figure 5.

R: We have made the font in Figure 5 bigger.

* **LINE 270:**Where did you come to the conclusion that “In the climatology, the position of the ITCZ, which coincides with the minimum value of ω, is located at 4°N”?

R: That conclusion is from the black line in Figure 7, which shows the MAM climatology for ω. This is now clearer in the text.

* **LINE318:**Please specify the range of the “10 years”.

R: Please refer to our reply for the comment about LINE 120 above.

* What’s the meaning of the“10 g kg -1ms-1” and “100 g kg -1ms-1” in figure 9?

R: Please refer to our reply for the comment about the 15 g kg -1ms-1 label for Figure 4.