

## ***Interactive comment on “The South American Monsoon Variability over the Last Millennium in CMIP5/PMIP3 simulations” by M. Rojas et al.***

### **Anonymous Referee #2**

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This study analyzes climate model simulations from the CMIP5/PMIP3 to investigate the variability of the South American Monsoon with emphasis on the Medieval Climate Anomaly (MCA) and Little Ice Age (LIA) periods.

The study is interesting and can be considered after major revisions.

The main comment I would like the authors to consider regards the identification of the MCA and LIA periods. The criterion used (described on page 5656) considers the temperature variability in each model separately, although all models were forced with similar forcings. However, the spread among the time periods for all models is very large (Table 1) sometimes differing by 150-200 years. The ensemble model mean and uncertainties need to be considered in the analysis.

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### Other comments:

1) Page 5657 Line 2: please replace "that" by than 2) Page 5658 line 6: please explain why the precipitation was interpolated to 1 degree 3) Page 5659 line 29: do the proxy paleo records differentiate the transition seasons? 4) Page 5662 lines 19-24: what could be the reasons for these differences? any speculations?

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Interactive comment on Clim. Past Discuss., 11, 5651, 2015.

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