

## ***Interactive comment on “Climate variability of the mid- and high-latitudes of the Southern Hemisphere in ensemble simulations from 1500 to 2000 AD” by S. B. Wilmes et al.***

**S. B. Wilmes et al.**

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1) 3092 L15-16: check syntax / sentence

Changed to “thus, hampering the possibilities of regional reconstructions”

2) 3094 L 5: probably <half millennium>

Changed to “climate variations during the period 1500 to 2000 AD”

3) 3096 L25 Probably CCSM3 (?)

Changed as suggested.

C2235

4) 3100 L7: located in (?)

Changed to “a dipole pattern with opposite poles located in the South Pacific and the South Atlantic emerges”

5) 3101 L23: check syntax : with a (?)

Changed to “For surface pressure there is a rather weak response showing similarities to the structure of SAM in the sector from 90°E to 120°W. “

6) 3103 Chapter 5: clarify whether you speak about TT or PP (e.g. L21 : JJA precipitation reconstruction ?)

In section 3.1 we only discuss the atmospheric modes. To clarify this we specify the reconstruction on line 21: “which is especially prominent in the DJF SAM reconstructions.”

7) 3005 L26 southern South-American

Done as suggested.

8) 3106: These findings are supported : : : This is not a surprise (but rather a circular argument) because these data sets were the basis for the Neukom et al reconstruction! These are by no means independent!

We agree and decided to remove this paragraph as reviewer #2 suggested to substantially shorten the Discussion part.

9) 3107 L27 affected ? Delete one <also>

Done as suggested.

10) 3109 L 12: which were simulated ?

Changed to “the increase in the westerlies which has been simulated”

11) 3109 L17: external forcing?

C2236

Changed to “with time varying external forcing”

12) 3109 L 23: certain range .. maybe replace with <under the range of external forcing the Earth has experienced during the last 500 years> or so.

Changed to “thus suggesting stability under the range of external forcing the Earth has experienced during the last 500 years.”

13) 3110 L 26: However, as noted previously, ...

Changed to “However, as noted previously, especially temperature”

14) Table 3: 1st row should probably read SA1 – SA4

Done as suggested.

15) Fig 6 Caption: should probably be precipitation instead of temperature (copy-paste from Fig 5) Fig 7: yes, that can be left out (see Rev 2)

We changed the caption of Fig. 6. Additionally we agreed to delete Figure 7 and the reference in the manuscript (page 3100 L26). “Both for temperature and precipitation the correlations remain constant over time neither strong displacement nor reversals in sign are found (not shown).”

Dear Martin, Thank you for your helpful and constructive comments which substantially improve our manuscript.

Kind regards, S. B. Wilmes and C. C. Raible and T. F. Stocker.

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Interactive comment on Clim. Past Discuss., 7, 3091, 2011.