

Dear Editor,

Thank you very much for accepting our manuscript to GMD. We applied the few corrections you required in the final letter. Here below you can find the detailed replies to your comments.

Best regards,
Paolo Davini

Minor points

1) the protocol should have a version number

As already required by the Editor in June 2016, we introduced the definition of a SPHINX “v1.0 protocol” to describe the scientific setup of the Climate SPHINX experiment. This is highlighted in the abstract (P1 L11) and it is detailed in Section 3. Please let us know if the Editor is referring to something more specific.

2) when referring to the ocean resolution of the CMIP5 vs HADISST, it reads as if HADISST resolves the ocean perfectly. It doesn't, so please rephrase in a more careful manner.

We agree with the Editor: the previous version can be misunderstood. We replaced “in order to overcome this issue” with “in order to improve boundary conditions” at P9 L21. In this way, we highlighted that the HadISST2.1.1 provides a higher temporal and spatial variability, but we removed the implied “perfect” resolution of the ocean circulation. If the Editor is referring to other parts of text as well, please let us know.

3) the new addition at page 24, line 23 in the conclusions seems to have an erroneous 'provides'

Thank you very much for pointing this out, we removed it.

4) please provide a link to the GMD paper on the Sphinx website

We have already put a link to the GMD discussion in the SPHINX website in the main page

<http://sansone.to.isac.cnr.it/sphinx/> and in the news section

<http://sansone.to.isac.cnr.it/sphinx/?q=content/sphinx-news>

Once we will have the final URL for the accepted manuscript (which, as far as we understand, it will be different from the present one) we will add it into the main page and in the news section.