

Dear Editor:

Thanks for your handling of this manuscript. We attach a revised version, where the minor comments of the reviewer are addressed (additional text is marked red and deleted text is crossed).

Precisely, considering the reviewer's general comments:

- 1) Introduction; page 2.... The reviewer insists adding some bibliographic references and we have accepted her/his suggestions. We have added the suggested bibliographic items and integrated with some others on the same subject. Androulidakis et al. (2015) and Ullmann et al. (2007) are now referred in the text (see page 2, line 18-19 and 25-27)
- 2) Old comment 3; pages 7-8. The explanation suggested by the reviewer is already present in the 3rd and 4th paragraphs of "Discussion and Conclusion". We have further reinforced it adding the text at page 15, line 30)
- 3) Old comment 5. We have added a footnote when teleconnection are first mentioned in the paper at page 13 where we write that "Here teleconnection does not refer to a mechanism acting at global scale, but across different areas of the Mediterranean region" and added the connotation "synoptic scale teleconnection" at page 16 line 5

Considering the reviewer's specific comments

- ✓ Figure 11 and Page 13: here statistical significance is considered when the null hypothesis of no trend can be discarded at the 90% confidence level. Other slightly different approaches are obviously possible.
- ✓ Page 3, Lines 18-25: we admit the text was confusing. No new simulation was performed for this study. We used the same simulations as in the 2013 paper. The text has been corrected (see page 3, lines 21 and 24-25)
- ✓ Page 4, Lines 6-7: the sentence has been modified (see page 4, lines 6-7)
- ✓ Page 13, Lines 1-3: The residual in the third column of figure 12 shows to which extent other factors beside the inverse barometer effect are at play. A short comment has been added (see 13,line 30)
- ✓ Page 14, Lines 8-22: The text has been corrected to describe the four columns of figures 12 and 13 (see page 14, lines 4-7).

All editorial comments have been corrected.

Best regards

Piero Lionello on the behalf of all authors