

Second Revision of wcd-2021-6 “Reconstructing winter climate anomalies in the Euro-Atlantic sector using circulation patterns” by Madonna et al.

We would like to thank the reviewer for the comments and suggestions.

I thank the authors for their thorough reply to all my raised points of the previous revision process. As the authors implemented all my previous suggestions and/or added additional text/discussion to clarify my previously raised points, I am happy to see the current version of the manuscript published. Below are some final minor comments that may be addressed.

lines 101-102:

I appreciate the inclusion of this extensive sensitivity analysis. Strong variations in the choice of d do not seem to have a significant impact on the results/conclusion. I would suggest to explicitly mention this robustness of the results here, because only referring to the sensitivity analysis in the supplement could lead to the impression that the conclusion might not be that clear.

We replaced “A sensitivity test to the choice of this threshold is provided in the supplement” with “A sensitivity analysis suggests that the choice of the threshold d does not have a significant impact on the results (see supplement).”

line 151:

Inconsistent use of this abbreviation, sometimes Sec. and sometimes section (e.g. line 256), same for Fig. (Fig. and Figure).

We now use Figure throughout the manuscript.

line 215:

“...by almost no anomalies (Fig. S1).” I would suggest to rephrase this slightly. The main point is clear here, but it is maybe a bit too much to talk about almost no anomalies, as the temperature anomalies of Fig. S1 (e.g. high latitudes) are close to the anomalies discussed previous (e.g. Fig. 4, cold anomalies in Africa for N-jet). Of course, for this example I compared the anomalies for Africa with the ones for high latitudes and not the anomalies limited to the same regions. Maybe the sentence could be rephrased in a way to account for this.

We modified lines 215. It now reads “The composites of precipitation and temperature for those categories are similar to climatology and therefore their patterns are characterized by little anomalies, in particular over the European continent (Figure S1)”

lines 351-352:

weighted orthogonal is written in another format than the rest of the text.

We have removed the italic notation.