

Review for egusphere-2023-2643:

“ClimaMeter: Contextualising Extreme Weather in a Changing Climate”

This manuscript presents a novel platform for assessing extreme events (“ClimaMeter”), which offers a useful database for past and future analyses. The authors present the protocol for ClimaMeter and explain its output and how the events are visualised. The presentation is clear and well-structured. In my opinion, the manuscript should be acceptable for publication after minor revisions.

General comments

In addition to reviewing the manuscript, I have read the report of Referee #1 and generally agree with their comments. In particular, I had the same confusion about the exact purpose of the paper. The discussion is very general, with explanations that could be reported on the ClimaMeter website, and does not have the specific details you would expect from a scientific paper. A more detailed description of (at least) one of the studies, as Referee #1 proposed, would certainly improve the scope of the paper.

Specific comments

- L53-55 – A bit more detail could be given on the event selection. Are there any plans on making this a more automatic process?
- L72 – A climate reconstruction still uses a combination of observations and models; how is this independent of model bias?
- L81 – It would be useful to report the actual grid size of MSWX here.
- L94 – It is unclear to me how these analogues are exactly defined. Do you ever consider similar events at other locations?
- L140-145 – The way the gauge is presented makes it seem that the conclusion of natural variability vs climate change is very certain, but it is based on only three indices. You mention some of the drawbacks of this earlier in the text, but the final presentation (i.e. the left-hand gauge) can lead to the interpretation that an event is (for example) completely outside of natural variability, while there may be other factors playing a role. A more detailed description of the reasoning behind these choices will be helpful.

Technical corrections

- L17 – “Hurricane” → “Hurricane”
- L113 – “different” → “difference”
- L136 – “or wind” → “and wind” (as you show them all)
- L137 – “”past” and ”present”” → “”present” and ”past”” (as you show ”present” – ”past”)
- Fig. 1 – “”past” and ”present”” → “”present” and ”past”” (as you show ”present” – ”past”)
- L163 – “or wind” → “and wind” (as you show them all)
- L209 – “analyzed” → “analysed”