

Comment on essd-2021-463

Anonymous Referee #2

Referee comment on "Combined high-resolution rainfall and wind data collected for 3 months on a wind farm 110 km southeast of Paris (France)" by Auguste Gires et al., Earth Syst. Sci. Data Discuss., <https://doi.org/10.5194/essd-2021-463-RC2>, 2022

Review comments:

In this paper, the authors present a three-month long atmospheric measurements dataset from a meteorological mast installed at a wind farm in France. The dataset comes out of a campaign using two 3D sonic anemometers, two meteorological stations, and two disdrometers.

While reviewing this data paper, I came across some issues which need to be addressed before they can be published.

Major comments:

1. The authors include the python scripts along with the dataset which is really helpful for the potential users for their analysis. That said, I feel that a single dataset file is presented which is too large to download (9.6 GB) and view if one wants to check just a file of interest. For better accessibility, it would be better to perhaps break the dataset into multiple subsets, for example by each device, or with a better strategy for sharing and accessing the data with ease.

2. A brief description of how the updates/curation of the dataset will be handled is important to include in the manuscript.

3. What is the value of such field campaigns and data measurements on wind and rainfall? The answer to this question is missing in the manuscript.

4. The premise of this dataset is built around exploring the impact of rainfall on wind energy as you mention right at the beginning of your manuscript. The manuscript, however, does not touch anywhere on this.

5. Most of the figures can be generally improved in terms of their size, presentation, and texts included. More detailed suggestions are made wherever relevant in the minor comments.

6. Will there be any difference in the multifractal analysis results if one uses the entire 3-month dataset as opposed to 1 month dataset only? My concern is primarily from the seasonality point of view.

Minor comments:

7. The abstract should include the location where the data was taken. Also, including a sentence on the target users of this dataset would benefit the readers.

8. L5-6: The sentence doesn't read well. Rephrase it!

9. Check parenthesis in the Figure 2 caption.

10. L61: Add a sentence or two further describing the terrain settings around the mast.

11. L66: "of" missing in the sentence after "are located in one?"

12. Add North arrows in Figures 3 and 4. In figure 4, instead of the elevation product in the legend, use "Elevation [m]".

13. L75: Begin the sentence with a lowercase "which".
14. L108: There are several pieces of literature on this topic estimating rain rate from disdrometer data that are worth noting here. Include some key ones.
15. L112: Are you referring "Anemometer #2"?
16. Figure 6: I suggest rearranging this figure with the R vs time plot in the first row while the rest in the second row. This might provide a better distinction of rain rate between each station/disdrometer.
17. L176: Remove "the" after "This is done through".
18. L179: Correct the sentence as "It provides a summary....".
19. Figure 8: It needs many details to be easily comprehensible to the readers. Each of the subplots should be labeled and properly described in the caption or referred to in the description in the text. Also, you have enough space to make it bigger for readability.
20. L226: Check the sentence for correctness.
21. L271: Should it be "more than...?"
22. Figure 9: This figure should follow the text describing it rather than the other way around. Also, in the caption, there is no subplot (d) in the figure. Make sure you add it.
23. L313: The paragraph should include a brief description of what Trace Moment (TM) analysis is and how it can support the Universal Multifractal analysis.
24. L319: Maybe you could use a column here to remove confusion on whether it is a minus sign.
25. L339: You mean "...It is....?