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Discussions

Interactive comment on "An analysis on temporal scaling behavior of extreme rainfall of Germany based on radar precipitation QPE data" *by* Judith Marie Pöschmann et al.

Anonymous Referee #3

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General comments:

The contribution provides an interesting information about maximum rainfall and its scaling with duration for Germany. The methodology is quite clear and plausible. The manuscript is well written and concise. There are however some points which need clarification and improvement (see detailed comments).

Detailed comments:

1. Line 73: Compared to other Countries in Germany PMP is not used directly for design. A brief comment about this would be useful.

2. Line 92: A brief summarization for the pre-processing of the radar data would be very useful, so that the reader has not to consult other papers (see also comment 5).

3. Eq. (6): A closing bracket is missing before the equal sign.

4. Eq. (7): The second factor of the right side of the equation should read "tau to the power of b".

5. Line 140ff: The study is analysing maximum observed values from radar data. Consider-ing the problem of clutter in radar data I am wondering that this seems not to influence the analysis very much, since these values "simulate" high precipitation intensities. Even if in radar pre-processing the clutter have been removed, there are usually still some of those left. Please, discuss this problem.

6. Line 43: "(blue solid line)" I don't see a solid line in Fig. 4.

7. Figure 4: It would be interesting to see the maximum observed values from rain gauges for the same period as the radar data. This would in comparison with the longer period al-low a discussion about sample size and record length (space vs time).

8. Lin 159: A quantile is one value, so it should read for instance "0.99999 is the forth great-est cell value" not the plural "... cells".

9. Figure 6: This figure does not make sense to me. It shows the locations of different quan-tile values. However, it would make more sense to show all values which exceed the prob-abilities and not only the one exact quantile.

10. Line 164ff: "The lower the quantile, the sparser the location . . ." I don't understand this. From my point of view, I would say "The lower the quantile the more cells occur exceeding this quantile."

11. Figure 7: I would suggest scaling the colours not simply from minimum to maximum (may be from 0.1 to 0.9 quantile and non-linear), so that we have more contrast and not only blue in the figures.

12. Figure 8: What is the reason for selecting cities here? There might even be anthropogenic influence on rainfall in urban areas. Please discuss.

13. Figure 10: Please include description of the lines in caption or legend.