How uncertain are precipitation and peakflow estimates for the July 2021 flooding event?

by

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Answer to Anonymous Referee #1

1   Summary of main changes

We gratefully acknowledge the valuable suggestion made by the Anonymous Referee #1 and we would like to thank them for their time and evaluation. We updated Figures 1, 4, and 5 to 8 to enhance their readability. Below we provide a detailed reply to the technical suggestion of Referee #1.

2 Response to comments of Anonymous Referee #1

Comment 1: *"The authors addressed all comments made by the referees in the first revision round in an adequate manner. Changes were made according to the referees' comments, or sufficient justification was given if not.*
I congratulate the authors for their efforts and achievements.
I recommend the manuscript for publication, with only a minor technical remark: please check the colours in the figures (line and box plots) for colour-blind friendliness. I had some problem differing the different line colours, although I am not suffering from colour-blindness. Maybe a mixture of less colours and different line styles are a better solution. The authors may refer to this helpful guide on selecting colours for figures:
https://www.cta-observatory.org/wp-content/uploads/2020/10/CTA_ColourBlindness_BestPractices-1.pdf"

Authors' response: We would like to thank the Reviewer for their comment. The number of QPE products that we tested made the choice of colors challenging, which resulted in figures that are not so easy to read. Following the Reviewer's suggestion and the indications in the valuable document they shared, we avoided the use of red and replaced it with blue but we kept the remaining colors (because they are used for the boxplots) and instead used different shapes/markers and line styles (mainly solid and dashed). Figure R1 of the present answer shows the new updated Figure 4 of the revised manuscript.
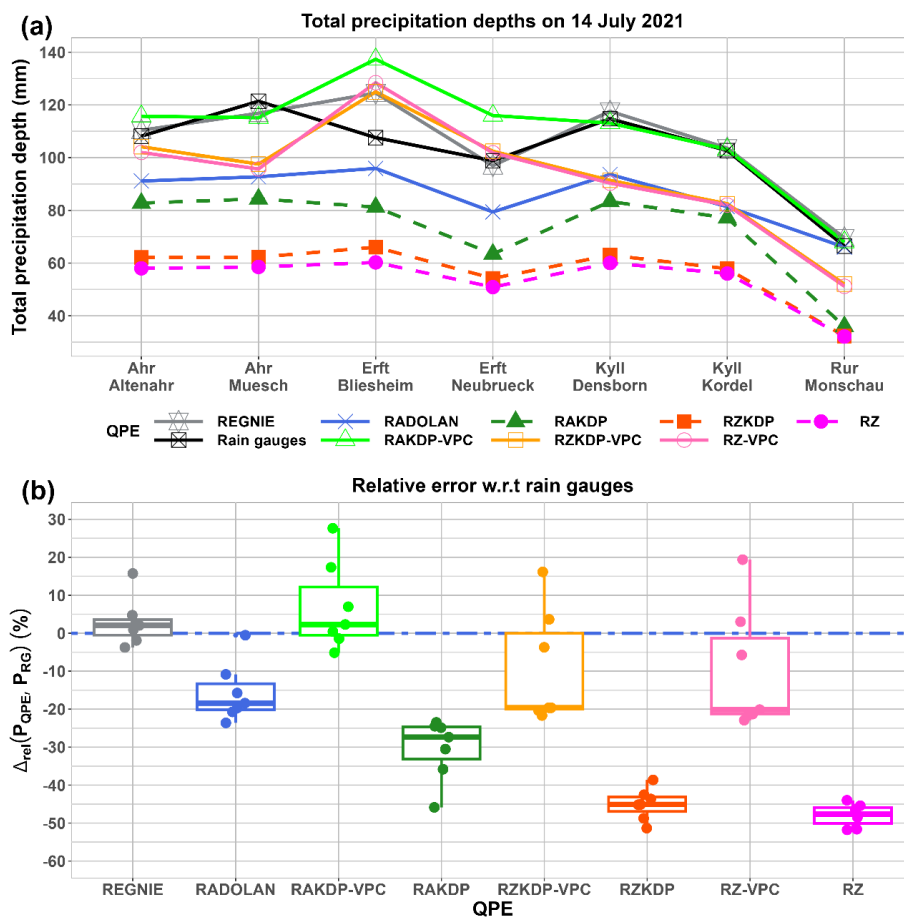
Figure R1 : (a) Total precipitation depths for the 14 July 2021 estimated by rain gauges, REGNIE and radar-based QPE products. (b) Relative errors in REGNIE and radar-based QPE with respect to (w.r.t) estimates from rain gauges using Thiessen polygons of the total catchment-scale precipitation depth for the 14 July 2021.