

2nd Author Response for Manuscript: *Brief communication: How extreme was the thunderstorm rain in Vienna on 17 August 2024? A temporal and spatial analysis.*

Vinzent Klaus^{1,*}, Johannes Laimighofer^{2,*}, and Fabian Lehner^{1, 3,*}

¹GeoSphere Austria, Vienna, Austria

²Institute of Statistics, BOKU University, Vienna, Austria

³Institute of Meteorology and Climatology, BOKU University, Vienna, Austria

*These authors contributed equally to this work.

Correspondence: Vinzent Klaus (vinzent.klaus@geosphere.at), Johannes Laimighofer (johannes.laimighofer@boku.ac.at), and Fabian Lehner (fabian.lehner@geosphere.at)

Response to Editor comment (Oct 22, 2025)

Dear Vinzent Klaus, Johannes Laimighofer, and Fabian Lehner!

5 Many thanks for the careful revisions made for this manuscript. Nevertheless, may I please ask you to work on one aspect to further improve the accessibility of the results. In the abstract, you mention that the 107mm/2hrs observed precipitation rate would be estimated as having a return period of about 700 years. For INCA, you give the 100-yr return periode as about 61-90mm/2hrs. Can these two pieces of information be presented in a more integrated way e.g., by giving the 100- or 700-yr RP for both respective datasets? Can this be reflected in the text more precisely?

Looking forward to this slight revision.

10 All the best

Gregor Leckebusch

Dear Gregor Leckebusch,

15 thank you for this helpful comment, which further improves the overall structure of the manuscript. We have included the 100-year return period for both INCA and the station data. However, we refrained from showing the 700-year return period for INCA, given the relatively short duration of the dataset (only 20 years). We hope this decision is in line with your expectations.

Sincerely,

The Author Team (*Vinzent Klaus, Johannes Laimighofer, and Fabian Lehner*) .