

Line number	Comment
12	The definition of EI (“conditional distribution of rainfall erosivities”) is not consistent with the definition you use in 2.1.
56	Here I am missing a physical description, before introducing the more empirical relationships, e.g. Wischmeier, 1959
63	Does erosivity means in this context the rain erosivity or the erosivity also including site specific characteristics?
65+66	The statement:” RPs that do not account for this pronounced climate-change effect will become outdated shortly after they are elaborated.” Contradicts the fact that the data set used only goes up to 2017.
76-79	From my perspective, the focus in chapter 3.3 is not on evaluating the RPs of EI and depth duration curves but more on the evaluation of the durations
90-100	Shorten the paragraph with SI and imperial units. I think it is helpful to know that there are the two systems, but the details are not needed in the context of this study. What would be more helpful is a short description of the R-values derived by Auerswald et. al (2019), hence it is the base for calculating RPs in the end.
109	A brief description of the used radar data would be helpful: RADOLAN or RADKLIM?, temporal resolution
109	According to Auerswald et al. (2019) the temporal resolution of the RR data is 1 h. I am wondering how you can obtain the I30 from data with a 1-h resolution.
112	Which pixel you have chosen, the maximum? Please specify
129	“Let $\mu_{s,t} = E(EI_{s,t})$ denote the expected EI of an individual event”, but t are the individual years, there is no index for individual events
136-138	This is again contradictive to the usage of only 17 years of data, although 25 years would be available.
142+143	“The first stage of the analysis was to investigate whether individual-event EI observations from different locations and years can reasonably be regarded as samples from a common probability distribution. Particular attention was given to the mean EI.” Is this shown in the results?
149	“Differences are sufficiently small to justify pooling for the intended application” – I think it would be helpful to describe in this context which criteria you used, to evaluate this.
216	Is it the mean over all location and years?
234	Just for curiosity: Do you see a trend in the R-values of the light blue markers (annual mean averaged over sites)? It would be very nice to have at least for some points the corresponding year, if you have an idea how to include it in the graph.
284-291	Maybe I have overread it. For me it is not entirely clear on which spatially or temporally aggregated level you have done the analysis. Step 1: Have you used the mean R factor (2001-2017) for each pixel? Step 2: Have you setup the ECDFs based on the spatially and temporally pooled EI values resulting in different ECDFs based on the number of erosive events for the distinct year?
319	available (typo)
321	Refers to Figure 3
338-340	I fully agree with you that RR data is a good option for spatial high resolved analysis. But in this context, I also see the issue of a potential underestimation of events with high intensities using RR data (e.g., Kreklow, 2020), leading to a potential underestimation of EI. Kreklow, J., Tetzlaff, B., Burkhard, B., & Kuhnt, G. (2020). Radar-based precipitation climatology in germany-developments, uncertainties and potentials. <i>Atmosphere</i> , 11(2). https://doi.org/10.3390/atmos11020217

421	verb is missing
431	How many years of data do you need at least (30a?), to extend your analysis to a monthly basis?
478	wrong DOI in Auerswald(2019): https://doi.org/10.5194/hess-23-1819-2019
480	right DOI of Auerswald (2021) is shown but link is not accessible 10.1016/j.still.2021.105155
514-540	format of DOIs different