

We would like to appreciate Anonymous referee #2 for his/her positive and constructive comments on the manuscript. We have carefully considered and addressed all of the comments in the following. The original reviewers' comments are in italics, while our response is in plain text.

*The main comment relates to the WegenerNet's level 2 data used as reference. This dataset seems to be an interpolation simply based on inverse distance weighting, while the INCA dataset takes into account an external trend caused by topography. I imagine topography plays an important role for the spatial distribution of the rainfall in Austria, why is this not accounted for in the WegenerNet's level 2 data? This is an important point that should be clarified in the manuscript. How does it impact your comparison and the results? Could the INCA dataset be potentially more accurate because of its account of local topography? This needs to be discussed in the revision because this may have a major impact on the findings.*

The INCA analysis dataset is generated for the whole of Austria. Since parts of Austria are covered by the Alps and the effect of topography is significant in these parts, this effect is considered in the INCA algorithm. However, the Feldbach region is located in a moderate hilly landscape, and the difference between the highest and lowest altitudes is approximately 300 m. So, we do not expect that topography can have a significant effect on the results in this area. Also, we did not find any systematic effect due to topography in our study.

*Another comment relates to the relatively small area used for analysis of the INCA. How does this apply to the whole of Austria, or even the rest of southeast Austria? I imagine that the INCA dataset is more precise in some areas than in others. For example, the study area is relatively far from the closest radar station used in the radar-gauge merging procedure of INCA. How many rain gauges have been used for the radar-gauge merging of INCA? Where are these gauges located? Is the study area a particularly well- or poorly-covered area, relative to the rest of Austria? All in all, my comment relates to the possibility of extending the results found in this study to the remaining of the INCA dataset for Austria. Do the results of this study apply only to southeast Austria?*

We agree that there should be more explanation about ZAMG stations and their spatial distribution. We will add more explanations about the stations' density. In general, the average horizontal distance between stations is 18 km.

Regarding extending these results, there are three reasons that we cannot generalize these results for the whole of Austria: the topography of this area, the climatology of this area, and the distance from the radars. This is also a valid point that the study area is relatively far from the radars, which can negatively affect the INCA performance. However, there is no other network to check this effect separately. Generally, we expect that these results can be representative for other areas with the same topography and climatology (moderate hilly and convective-dominant in summer).

*Minor comments:*

*46: consider rephrasing to “a spatially dense...”.*

We agree with this comment, and we will correct this in the revised manuscript.

*65-66: I found this sentence confusing: “using gridded precipitation fields from the dense WegenerNet weather and climate station” given that the WegenerNet data is not a grid but a set of point measurements with a nearly perfect spatial coverage over the area. This sentence, to me, reads as if you compare an interpolated field with another interpolated field. In Section 2.1 it is made clear that WegenerNet is not an interpolated field, so it would be wise to avoid this confusion in the Introduction of the manuscript. Sentence at L. 93 is also confusing for the same reason. AHA I now understand from L. 97 that this is indeed a gridded dataset! Might be good to reformulate the previous text on it, to let the reader know that you use the gridded data of the WegenerNet dataset.*

We agree with this comment, and we will rewrite this part in the revised manuscript.

*166-167: aggregated with the sum or mean?*

We aggregated WegenerNet precipitation to 15-minutes with the sum function. We will add more explanation in the revised manuscript to make this clear.

*224: model performance?*

Yes, it is model performance. We will correct this in the final manuscript.

*Table 1: as a side note, these indices can be summarized into a single diagram called the target diagram. It would have been useful to have such visualization. Note that this is just a comment, but I do not ask the authors to do it for this manuscript.*

We appreciate this comment. We will use this comment for future publications.