Interactive comment on "Radar and ground-level measurements of precipitation collected by EPFL during the ICE-POP 2018 campaign in South-Korea" *by* Josué Gehring et al.

Anonymous Referee #2

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The paper titled "Radar and ground-level measurements of precipitation collected by EPFL during the ICE-POP 2018 campaign in South-Korea by Gehring et al" describes the four-month dataset of precipitation and cloud measurements collected during ICE-PO 2018. While I believe the paper is well written, I am not sure if the authors made an attempt to convince a non-expert in this subject as to how important this data set is to the scientific community. I also see that the author is already published an article in ACP partly in regard to this data set focusing on one particular event of 28 February 2018. May be including a little bit more on other available data sets in this category and why these measurements are important compared to other measurements may help the readers who are not experts in this subject. While this dataset seem to be unique,

I believe the authors can do a better job in analyzing the available data and may be comparing with other available measurements. Otherwise, this is just another data set. I, therefore recommend authors to do further analyses to show the uniqueness of the data set and it would be helpful for the readers if the authors could explain this data set a bit more with more analyses such as a relationship between precipitation and reflectivity for both W-band and X-band radars.

Here are my comments:

Line 6, page 1 : please use a period following "video disdrometer (https://doi.pangaea.de/10.1594/PANGAEA.918315, Gehring et al. (2020a))"

Line 15, page 2 : It may be helpful to add something about how unique your measurements are and the importance of the data to the scientific community particularly to microphysics and their use in evaluating models.

Line 23, page 2: Isn't this figure same as figure 1 of Gehring et al., 2020 paper?

Line 1, page 7: The plots you show for these events (25 November 2017, 28 February 2018, 04 and 07 March 2018) are just a description of what you see in your data. It would be helpful if you could explain this data set a bit more with more analyses such as some sort of relationship between precipitation and reflectivity for both W-band and X-band radars and may be comparing the reflectivity with some other precipitation measurements that are available. I think this would add significance of this data set and the paper.

Line 15, page 7: Since this is the third-largest precipitation accumulation in the record, it may be helpful to see a precipitation rate time series plot and temperature if possible. May be if possible it will be appropriate to do the same sort of analyses for all the main events listed here.

Line 26-32, page 8: I think it may be appropriate to do further analyses here as well as commented above.

Once additional analyses are done, I would revise the "conclusions" section a little bit to include the uniqueness of the measurements and how they compare with other measurements (if they are available).Some sort of validation of the data may help strengthen the paper and the robustness of the data set I believe.