

Earth Syst. Sci. Data Discuss., author comment AC1
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Reply on RC1

Jafet C. M. Andersson et al.

Author comment on "OpenMRG: Open data from Microwave links, Radar, and Gauges for rainfall quantification in Gothenburg, Sweden" by Jafet C. M. Andersson et al., Earth Syst. Sci. Data Discuss., <https://doi.org/10.5194/essd-2022-221-AC1>, 2022

Dear Referee #1,

Thank you for your review of our manuscript, your encouragement on its quality and importance, and your comments. Please find below our response to your comments.

RC1, Comment 1: "My only concern about the paper and the provided data is the access and direct usability of the data. The authors provide access to raw CML and radar data. For the radar data, the paper presents equations and standard parameters to convert the raw reflectivity data into rain rates. However, this is not the case for the CML data. Either the authors could provide CML data that has already converted into rain rates (such as a rainfall product) or provide information on algorithms or a literature review on how to perform the conversion. Also, methods on e.g. bias-adjustment of both CML and radar data could be provided. By both supplying the raw data as well as directly applicable rainfall data, potential users could 1) use the data directly, e.g. in research in hydrological modeling, or 2) research further into conversion, bias adjustment and comparisons with other raw data conversion methods. Including both types of data would increase the number of potential users and create a basis for fundamental CML and radar research as well as an applicational leg."

Authors' response: It is true that there is currently an unbalance between the radar and CML descriptions in this sense. We will revise the manuscript with a short description on how raw CML data can be converted rainfall intensity (a basic algorithm). However, we prefer not to add rainfall time series derived from the CML data. The main reason is that CML processing can be done in several different ways – each with their pros and cons – and it entails making assumptions and interpretations, which need to be described and evaluated before use. This is beyond the scope of our manuscript. Our main ambition here is to provide raw data from several sensors on which different precipitation algorithms could be developed and/or evaluated (based e.g. only on CML or on several sensor types). This is also in line with the comment from referee #2.