

We sincerely thank the reviewer for their valuable feedback and critical evaluation of our manuscript. We appreciate the recognition that our paper is well-organized, comprehensive, and serves as a good reference for the community. Below we address the two specific concerns raised.

Comment 1. One suggestion is to heavily pare down the text in the introduction. This is not a review article and the reader is not here to read a comparison of different rain gauge technology.

We understand the reviewer's concern regarding the length of the introduction. However, the choice to introduce and compare conventional catching gauges alongside non-catching instruments was a deliberate structural decision. As noted by Reviewer 1, our goal was to make this article a practical, "one-stop resource".

As the landscape of meteorology evolves, non-catching sensors and disdrometers have the potential to play an increasing role in operational precipitation monitoring, shifting away from being purely specialized research tools. We therefore believe it is vital to inform non-expert users of the fundamental differences between these technologies. The detailed discussion of measurement principles, limitations, and uncertainties serves to raise awareness among users regarding pitfalls that are often overlooked, or whose information is otherwise scattered across a wide body of literature.

Comment 2. I also question the authors assertion that disdrometers can measure down to 0.01mm/hr of rainfall. Please provide a citation here. 0.01mm/hr is very very light rainfall (extremely light drizzle).

We thank the reviewer for catching this. There was a typographical error in the text; we intended to state 0.01 mm/h instead of 0.001 mm/h.

We agree that 0.01 mm h⁻¹ corresponds to extremely light precipitation. However, this threshold is within the theoretical detection capability of modern disdrometers, provided that sufficiently small drops are sampled over an appropriate time interval. Rees and Garrett (2021), for example, showed through sampling-statistics simulations that even a collection area as small as 2 × 2 cm² can be sufficient to isolate individual drops at a rainfall rate of 0.01 mm h⁻¹ for 1 min sampling intervals. This area is substantially smaller than the effective sampling areas of the disdrometers evaluated in our study.

The disdrometers considered in *disdrodb* reliably detect drops larger than approximately 0.5 mm in diameter. To further support this point, we provide below an illustrative calculation (Fig. 1) showing the rainfall rate associated with the detection of a single drop as a function of sampling interval and drop diameter, assuming a PARSIVEL sampling area of 54 cm². This calculation demonstrates that, for detectable drop sizes and classical disdrometer sampling intervals, a single detected drop can correspond to rainfall rates at or below 0.01 mm h⁻¹.

We have revised the manuscript accordingly, corrected the typographical error, and added the citation to Rees and Garrett (2021):

"...can measure precipitation intensities below 0.01 mm/hr for 1-min measurement intervals (Rees and Garrett, 2021).

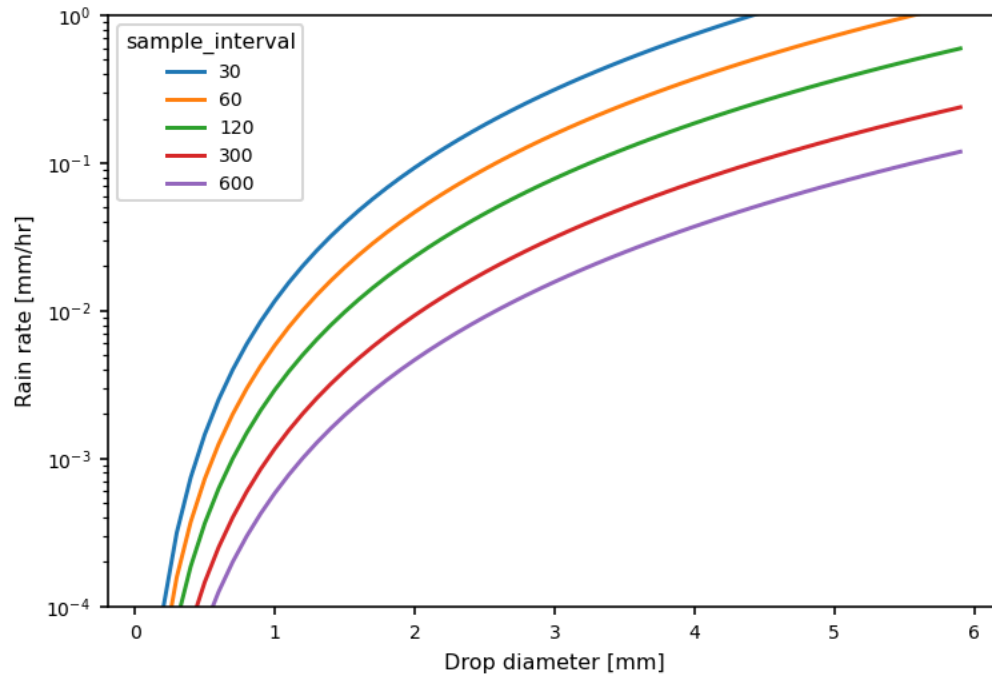


Fig. 1. Rainfall rate equivalent to the detection of a single raindrop by a PARSIVEL disdrometer. Values are shown as a function of sampling interval and equivalent spherical drop diameter, assuming an effective sampling area of 54 cm².

References

Rees, K. N., & Garrett, T. J. (2021). Idealized simulation study of the relationship of disdrometer sampling statistics with the precision of precipitation rate measurement. *Atmospheric Measurement Techniques*, 14(11), 7681–7691. <https://doi.org/10.5194/amt-14-7681-2021>