

Interactive comment on “Effect of disdrometer type on rain drop size distribution characterisation: a new dataset for Southeastern Australia” by Adrien Guyot et al.

Anonymous Referee #3

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The paper present a comprehensive analyses of drop size distribution (DSD) measurements using 2 pairs of laser-based disdrometer instruments from two manufacturers (OTT and Thies Clima) installed on the same observational site. The measurements took place in Melbourne, Australia, between 2014 and 2017. Raw and the processed disdrometer data were analysed with the objective to evaluate their differences, provide a quantitative description of the DSD for the region and the local climate, as well as develop relationships for horizontal reflectivity – rainfall rate (Zh-R) and attenuation – rainfall rate (gamma-R) of the microwave radiation. The paper is well written and organized, it meets the objectives with well-developed discussion. It concludes with directions for future investigations and provides the research community with an open

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access to the raw DSD dataset. The manuscript could be accepted after the technical corrections.

Comments:

Line 87: the reference Thurai et al. (2017) is missing in the reference list.

Line 95: incorrect reference according to the reference list – de Moraes Frasson et al., 2011.

Line 105: first two references are missing in the reference list.

Line 140 and Figure 1: not clear whether the disdrometers are placed 1.5 or 2 m above ground.

Line 169 (and elsewhere): Appendix 1 is in conflict with the title on page 27 – Appendix A.

Line 201: the reference Atlas et al. (1973) is missing in the reference list.

Line 219: the reference Testud et al. (2001) is missing in the reference list.

Line 237: the reference Ulbrich (1983) is missing in the reference list.

Line 294: the reference Chen et al. (2015) does not have an exact match in the reference list (2016).

Line 339: mistype – Thies PLM.

Lines 428, 431 and 440: the references Uijlenhoet et al. (2003a, 2003b and 2003) are not well defined according to the reference list.

Line 437: the reference Joss et al. (1973) is missing in the reference list.

Line 461: incorrect description of the blue curves ($D_m < 0.6$ mm).

Line 478: the reference Fernandez-Raga et al. (2011) is missing in the reference list.

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Line 508: the used acronym MPS has not been previously described.

Line 514: the reference Raupach et al. (2018) does not have an exact match in the reference list (2019).

Lines 516 and 517: the reference Uijlenhoet et al. (2003ab) should be corrected, Jaffrain and Berne (2011 and 2012) do not have a perfect match in the reference list.

Line 524: the reference Bringi et al. (2003) is missing in the reference list.

Line 594 – References: the references in the following lines have not been used in the paper: 628, 662, 666, 693, 702, 729 781 and 785.

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