

# Interactive comment on "Performance of post-processing algorithms for rainfall intensity measurements of tipping-bucket rain gauges" by M. Stagnaro et al. (Reply to Referee #3).

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We would like to thank referee #3 for his/her constructive comments. Below we report the referee comments in bold and our answer. A revised version of the manuscript, containing the reviewer's suggestion, is provided in the supplement of a separate comment.

**Abstract. I suggest to include in the abstract the numerical values of the RI interval where the impact of the algorithm is more relevant.**

Following the referee suggestion, we added the RI interval (6-50 mmh<sup>-1</sup>) where the inter-tip algorithm shows the most relevant effects.

**Section 2. The relative distance between the three instruments should be indicated here.**

Following the suggestion of referee #1 a brief description of the test field site has been added in the revised version of the manuscript, including the distance information (see comment c - Section 2 of the reply to Referee #1).

**Lines 22 and 26 (and throughout the paper), please be consistent with the labeling of the OSK data (OSK or DC or REF).**

The manuscript has been reviewed and the term OSK has been chosen to identify the drop-counter reference throughout the paper.

**Section 3. In equation 1 and 2 a summation notation should be used, and in equation 2 the second member should be multiplied by 100.**

Equation 1 represents the relative difference between the one-minute RI instrumental measurement ( $RI_m$ ) and the reference one-minute RI value. This calculation has been performed for each minute of all the events here considered.

Equation 2 indicates the calculation of the standardized one-minute RI. No summation notation is needed in the formulas because they are used to calculate each one-minute value, rather than any integral (or average) quantity.

The request from the reviewer may arise from the use of the percentage notation in Eq. 2, which is a typo from the first draft of the manuscript and is now deleted from the revised version.

**Figure 7 is a 3-panel figure, please describe in the caption all panels and put labels accordingly.**

Figure 7 has been re-edited and the labels have been added to each panel of the figure. The lower panel (c) description has been  
25 added in the caption of the figure.