

# ***Interactive comment on* “Evaluation of the WMO-SPICE transfer functions for adjusting the wind bias in solid precipitation measurements” by Craig D. Smith et al.**

## **Anonymous Referee #1**

Received and published: 25 October 2019

The main purpose of this paper is to evaluate the performance of transfer functions, defined with 2 years of data, using the following 2 years of records in 8 locations that contain a great set of instruments to measure precipitation. The manuscript is well written and structured, and shows a critical analysis of the transfer functions in these 8 locations.

Minor comments:

P2, L15: In this paragraph, a short comment of how these stations are maintained after snowfall, or when they might get ice around, would be beneficial.

P2, L28: What is a Precipitation detector?

P3, L6: A reference after “demonstrating that the unshielded catch from both SUT types were very similar.” would help in this sentence.

P4, L9-11: I think that a more detailed explanation of this sentence would help to complete the idea. For example, answering what makes these evaluations “marginally independent”?

P4, L17: I would include this sentence as the main result in the abstract.

P4, L29: What do you mean with “more natural circumstances”?

P4, L36: This has to be consistent with P4, L9-11.

P5, L3: I think the word “continued” should be in present tense.

P5, L7: I suggest completing the end of the sentence as: “...it will also isolate the performance to adjust snow measurements”

P9, L15: I have a question here, why not using a standardized RMSE value, as it highly depends on the precipitation rates?

P10, L1: Could you please add a number or a percentage to quantify the adjective “insubstantial”?

P9, L11-15; P10, L5 L7-8; P10, L28-32: these sentences describe the statistical parameters used to analyze the data. I suggest moving them to the methodology section.

P12, L10-11, The number of events that are not captured by the single-Alter shielded in XBK is over 50%, do you have any comments to propose a better monitoring system in this location? Or how we could possibly integrate these cases to the adjusted precipitation?

Table 1; Please, specify the meaning of “gh” in the table caption, or as a footnote.

Figures 3 and 4, I suggest increasing the panel size and/or font size.

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