

We thank the authors for their significant efforts to address the various points raised by the Reviewers and Editor, and for revising the manuscript, accordingly. Among other changes, the authors expanded sections and added new figures that improve the manuscript.

We have noted several additional points – mostly minor – to be addressed by the Authors prior to the publication of the manuscript. These points are detailed below.

- 1) The identification of ‘site biases’ when applying the combined transfer functions to data from the individual sites is an interesting and novel component of this work. In the original manuscript, the authors suggested that these biases could potentially result from the different numbers of precipitation events from each site used in the determination of the combined transfer functions. In their response to the Editor’s review, the authors explained that these site biases were not likely the result of the different methods used to identify precipitation events at each site, nor the different time intervals used for events from each site. Their response to one of the reviewers (Samuel Buisan) also outlined additional testing to assess the influence of the different numbers of events on the resulting transfer functions.

These justifications of the approach and results are important for ruling out potential factors that could contribute to the observed site biases, and we feel that they should be included in the manuscript. If the authors feel that these justifications/explanations would disrupt the flow of the manuscript, they could perhaps be added as an appendix or appendices.

- 2) The tables in the manuscript have been improved dramatically. To further streamline and ‘declutter’ these tables, we recommend that relevant units be moved to the table headers and removed from the table values. For example, change the header in Table 2 for wind speed to ‘Max U [m s^{-1} ’ and remove the units from the associated table values, and do the same for the mm and % values in other tables.
- 3) The Introduction section would benefit from a brief introduction to the concept of transfer functions, including how they are derived and what they are used for.
- 4) Page 3, line 25: ‘GENOR’ should be changed to ‘Geonor’.
- 5) Section 2: there is no reference to the fact that the Geonor gauges in the DFIR-shield at each site have different capacities (600 mm for US, 1000 mm for NOR). This detail should be included.
- 6) There is no reference to Figure 1c in the revised manuscript. This should be added.
- 7) The results presented in Section 3.3.1 pertaining to the height of wind speed measurements used in transfer functions appear to contradict results presented later in the manuscript. In Section 3.3.1, it is stated that ‘the 10 m wind speed... produced more accurate precipitation corrections than the gauge-height wind speed.’

- 8) Page 12, line 2: it is stated that the transfer functions follow 'the same form presented by others.' Which others? Please provide references.
- 9) Page 12, line 10: aren't the NOR measurements for 60-minute intervals?
- 10) Page 12, line 25: for NOR, snowfall was identified 'when $T_{air} < -2$ °C.' Is this the mean temperature over the interval, or the maximum reported temperature during the interval?
- 11) The manuscript refers to 'gauge height wind speed' and '10 m wind speed' extensively (e.g. page 14, line 2), but the tables indicate that these wind speeds are actually *maximum* values. If this is the case (which it appears to be), this needs to be stated explicitly in the text.
- 12) Page 14, line 25: the SDFIR results illustrate residual uncertainties when the wind effects are negligible relative to the gauge in the DFIR. Does it necessarily follow that uncertainties due to crystal type will also be the same as for the DFIR gauge?
- 13) Page 14, line 32 to page 15, line 2: improvements in results are compared for different shield configurations. RMSE and bias values are provided for the SDFIR gauge, demonstrating the minor improvement in results. It is then qualitatively stated that there were 'much more significant improvements' for other gauges, but no values are provided. This isn't a huge deal, it's just inconsistent. It is likely sufficient to make the same points using only qualitative statements and referring to the table(s).
- 14) Page 17, line 2: 'based on first principles...'. Which first principles? This statement is presented as an explanation, but no context is provided for its interpretation. Please clarify.
- 15) Page 23, caption for Table 7: '(Table 3?)' should be confirmed, and the question mark removed.