

Authors' response

We thank the editor and referee for reading the revised manuscript. We are happy to hear our revisions were sufficient and only minor modifications are needed. The following additions were made to the text:

The referee's technical comments:

Text taken from the last "Response to Referee" file:

"This is a valid suggestion, and actually a similar reliability analysis has been performed previously in Juusola et al., 2020 (Section 4.3): "... By removing the three nearest stations of ABK, KIL, and MUO, we can significantly decrease the density of the ..."

Please, mention in the manuscript (section 4.1) that the above reliability analysis has been performed in Juusola et al. (2020), and state its main conclusions in addition to those already stated to justify a reliable external/internal separation.

As suggested we added the following lines into manuscript Section 4.1, L215-218 :

"... Also in Juusola et al. (2020, Section 4.3) the authors performed a simple analysis on the reliability of the SECS separation by decreasing the density of stations used in the analysis. Their main conclusion was that even though there is a small increase in the internal contribution with the reduced network, the relative behavior of the different parameters is unchanged. ..."