

Second review of "Evaluating two methods of estimating error variances from multiple data sets using an error model" by Rieckh and Anthes.

The authors have addressed most of my comments to my satisfaction, but I still have some points left.

(1) In their response to calibration issues, the authors neglect scaling errors, i.e., the term a in $x_{cal} = ax + b$, with b the calibration bias. This may also be important, as was raised by Vogelzang in his supplement discussion. I recommend the authors to include this.

(2) I recommend to omit paragraph 3.3 and move relevant information to the rest of the paragraph. If the authors wish, they can start paragraph 3 with a short outline.

(3) Page 1, line 3: I suggest "Both methods assume that the data sets are well intercalibrated and that the errors are uncorrelated"

(4) Page 1, line 5: the reference to Braun et al. (2001): I don't know the exact style requirements of AMT, but is a reference in the abstract allowed? I leave that to the editor.

(5) Page 1, line 17: "is" instead of "are" (subject is "estimating")

(6) Page 1, line 18: "is" instead of "are".

(7) Page 2, line 17: I suggest "estimate both errors and linear calibration coefficients of surface winds"

(8) Line 32: "X,Y, and Z"

(9) Page 5, line 4 and Page 6, line 2: Both start with "We first generate". I recommend to change line 2 of page 6 in something like "Next, we generate"

(10) Page 19, line 3: I recommend "simulated data" instead of "a specified error model".